OIPE JC139 DEC 26 2001 PATENT & TRADEMARK OFFICE

2908.P6

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

NEIL Y. IWAMOTO, et al.

Application No.: 09/903,940

Filed: July 12, 2001

For: PRINTING WITH CREDIT CARD AS IDENTIFICATION

Group Art Unit: 2622

December 21, 2001

Commissioner for Patents
Washington, D.C. 20231

LETTER TRANSMITTING FORMAL DRAWINGS

Sir:

Transmitted herewith are twenty-three formal drawing sheets to be substituted for the nineteen drawing sheets presently on file in the above-identified application.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

Attorney for Applicants

Registration No. 42,746

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-2200
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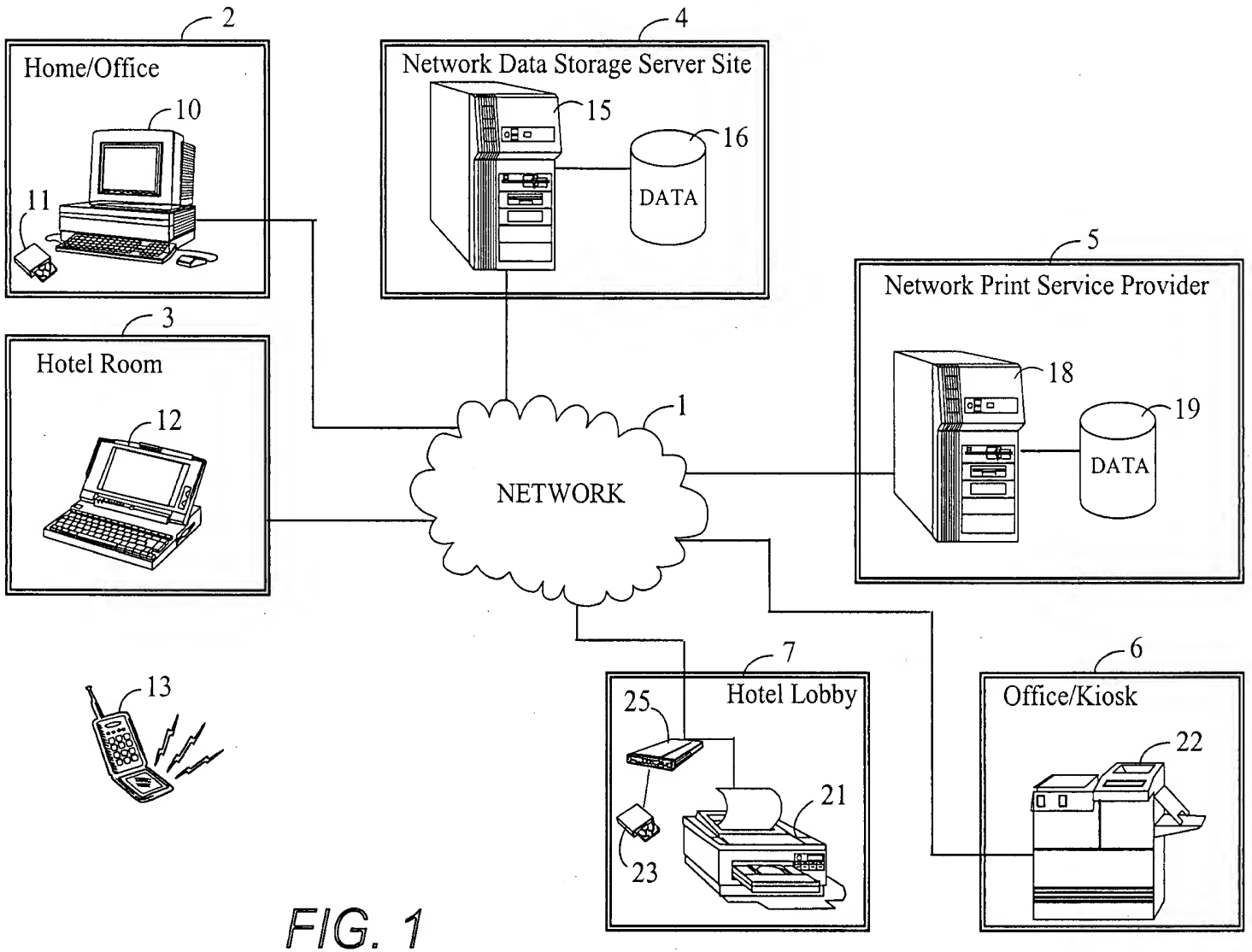
2
Home/Office
10
11
4
Network Data Storage Server Site
15
16
DATA
5
Network Print Service Provider
18
19
DATA
3
Hotel Room
12
1
NETWORK
13
7
Hotel Lobby
25
21
23
6
Office/Kiosk
22

FIG. 1

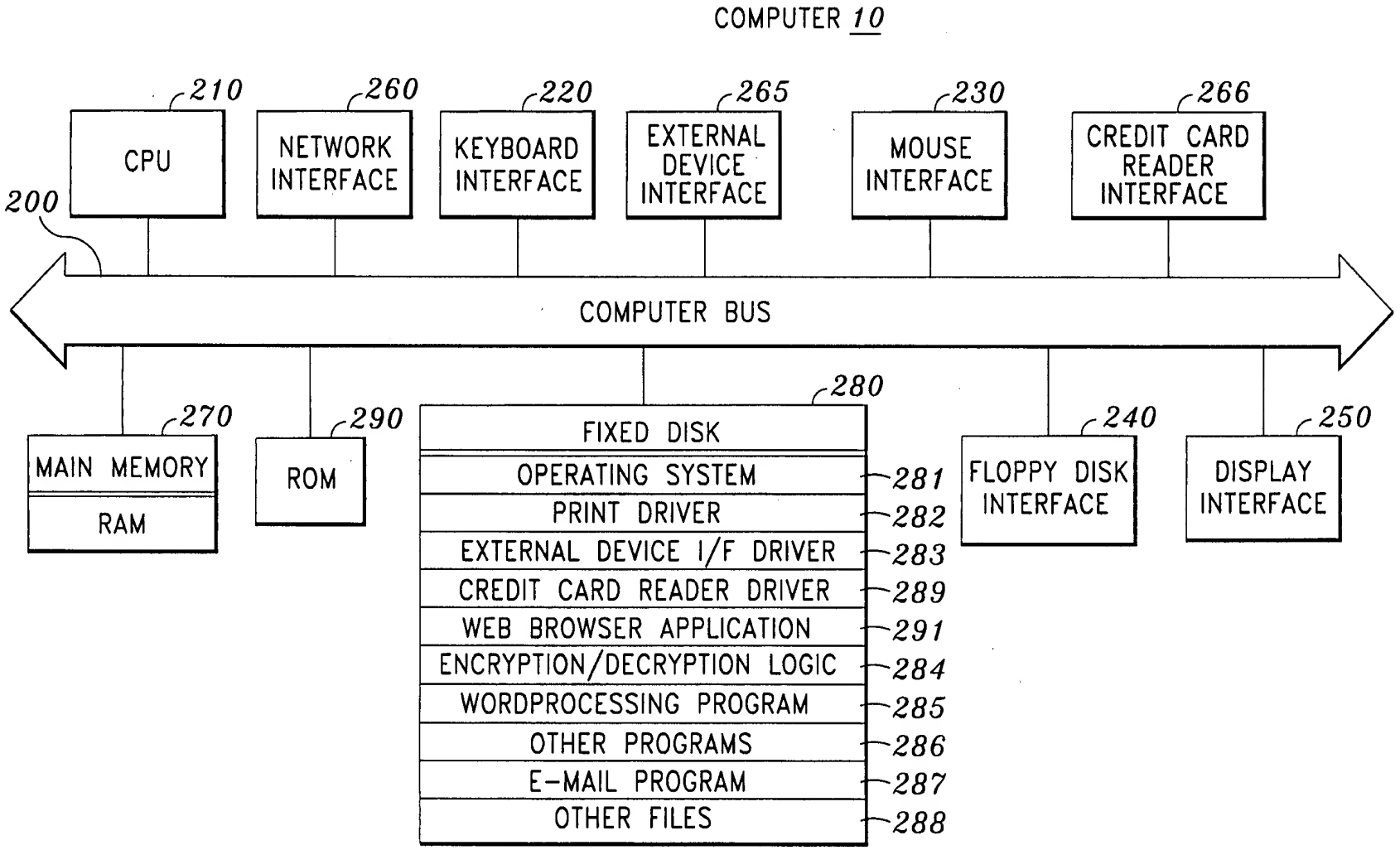
COMPUTER 10
210
CPU
260
NETWORK INTERFACE
220
KEYBOARD INTERFACE
265
EXTERNAL DEVICE INTERFACE
230
MOUSE INTERFACE
266
CREDIT CARD READER INTERFACE
200
COMPUTER BUS
270
MAIN MEMORY
RAM
290
ROM
280
FIXED DISK
OPERATING SYSTEM
281
PRINT DRIVER
282
EXTERNAL DEVICE I/F DRIVER
283
CREDIT CARD READER DRIVER
289
WEB BROWSER APPLICATION
291
ENCRYPTION/DECRYPTION LOGIC
284
WORDPROCESSING PROGRAM
285
OTHER PROGRAMS
286
E-MAIL PROGRAM
287
OTHER FILES
288
240
FLOPPY DISK INTERFACE
250
DISPLAY INTERFACE

FIG. 2

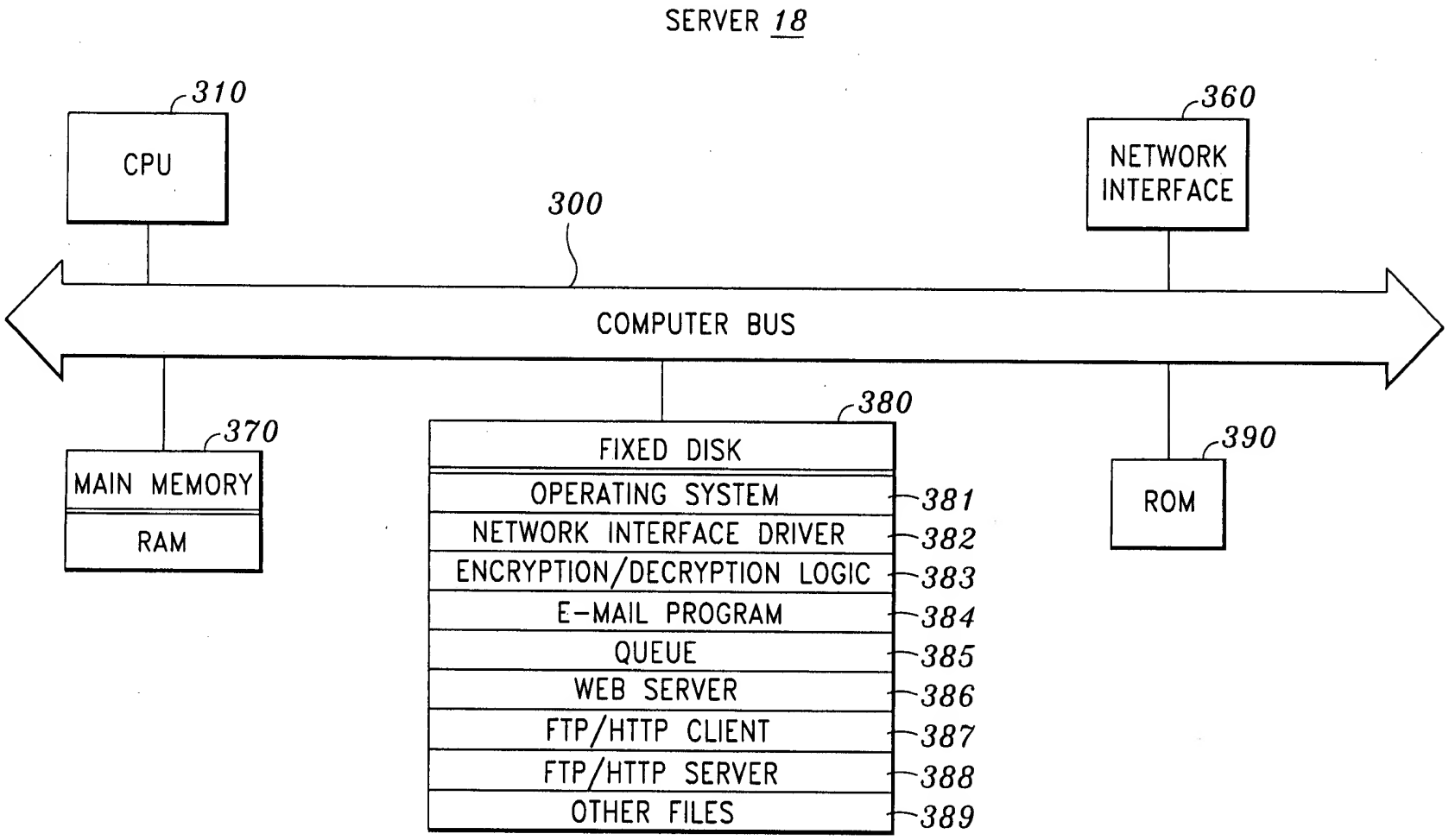
SERVER 18
310
CPU
360
NETWORK INTERFACE
300
COMPUTER BUS
370
MAIN MEMORY
RAM
380
FIXED DISK
OPERATING SYSTEM
381
NETWORK INTERFACE DRIVER
382
ENCRYPTION/DECRYPTION LOGIC
383
E-MAIL PROGRAM
384
QUEUE
385
WEB SERVER
386
FTP/HTTP CLIENT
387
FTP/HTTP SERVER
388
OTHER FILES
389
390
ROM

FIG. 3

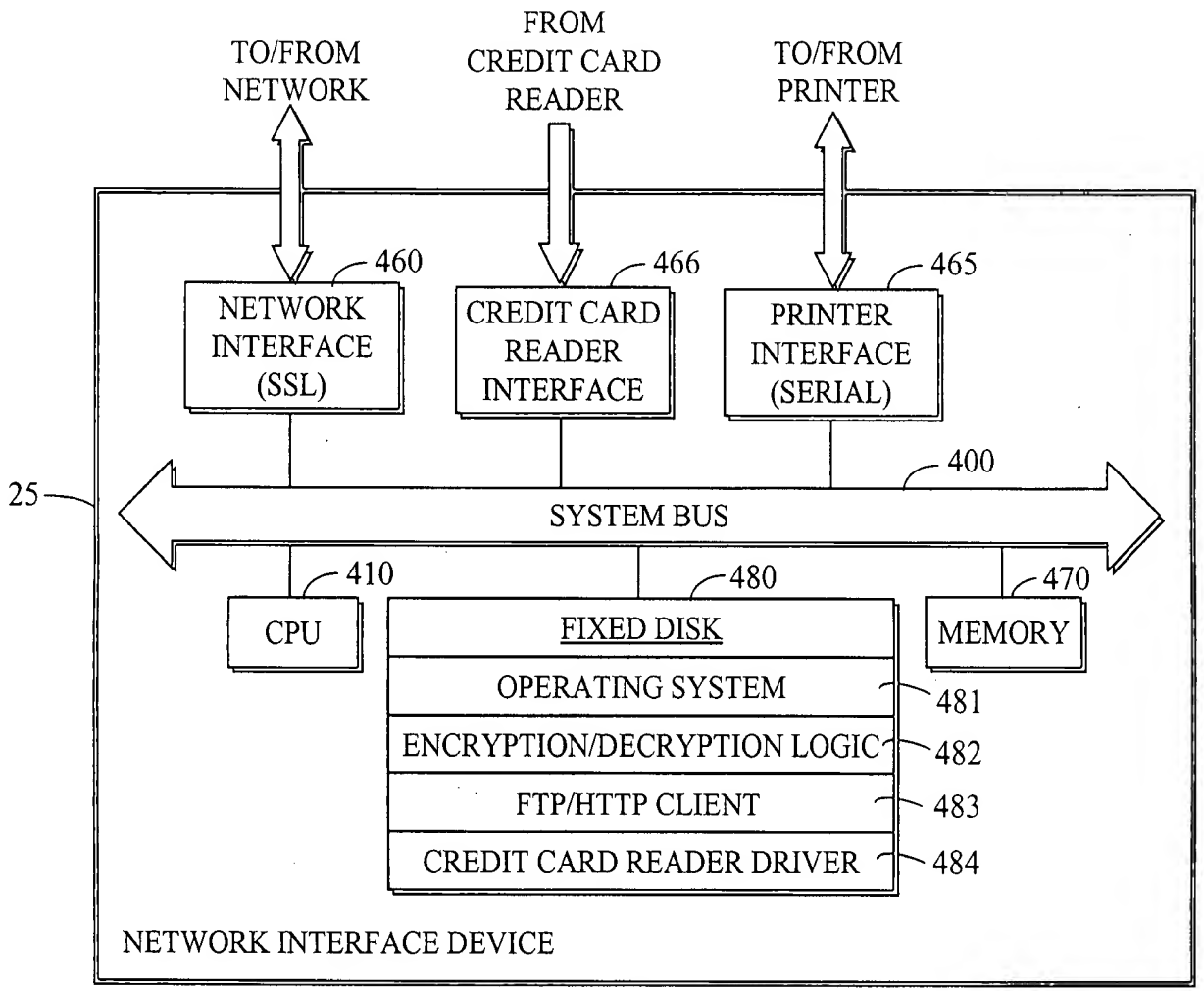
TO/FROM NETWORK
FROM CREDIT CARD READER
TO/FROM PRINTER
460
466
465
NETWORK INTERFACE (SSL)
CREDIT CARD READER INTERFACE
PRINTER INTERFACE (SERIAL)
400
25
SYSTEM BUS
410
480
470
CPU
FIXED DISK
MEMORY
OPERATING SYSTEM
481
ENCRYPTION/DECRYPTION LOGIC
482
FTP/HTTP CLIENT
483
CREDIT CARD READER DRIVER
484
NETWORK INTERFACE DEVICE

FIG. 4

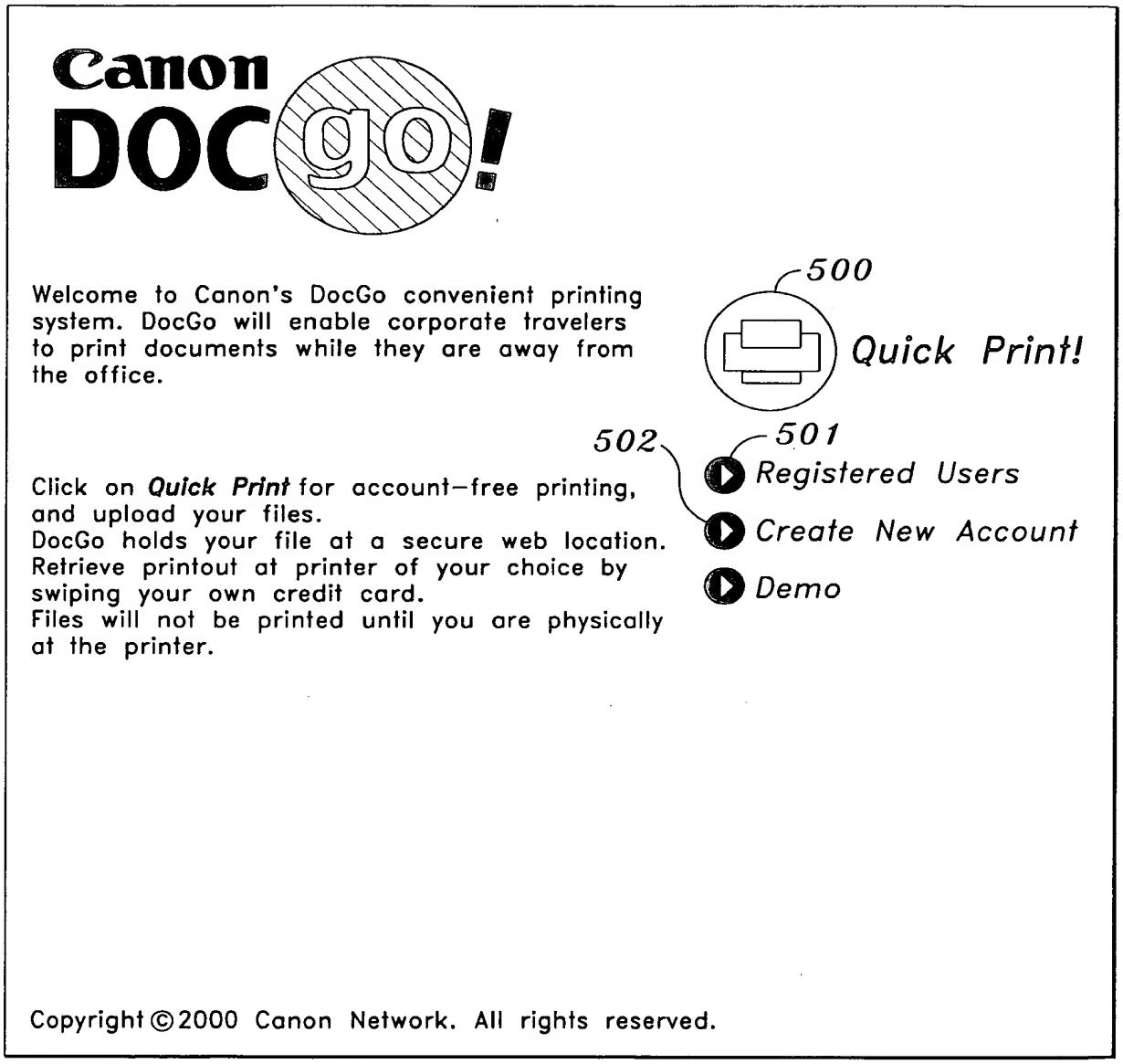
Canon
DOCgo!
Welcome to Canon's DocGo convenient printing system. DocGo will enable corporate travelers to print documents while they are away from the office.
500
Quick Print!
502
501
Registered Users
Create New Account
Demo
Click on Quick Print for account-free printing, and upload your files.
DocGo holds your file at a secure web location.
Retrieve printout at printer of your choice by swiping your own credit card.
Files will not be printed until you are physically at the printer.
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FIG. 5

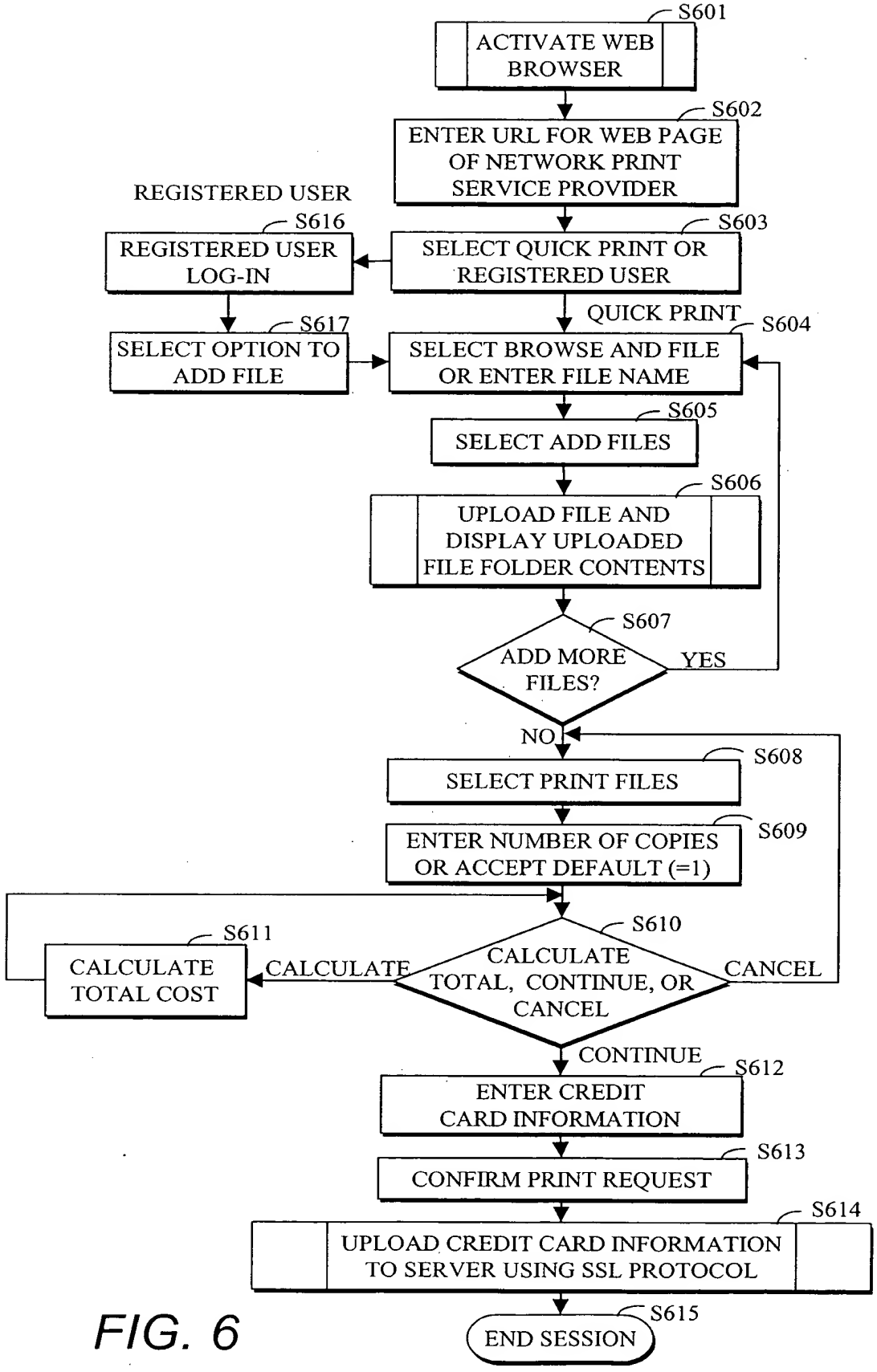
S601
ACTIVATE WEB BROWSER
S602
ENTER URL FOR WEB PAGE OF NETWORK PRINT SERVICE PROVIDER
REGISTERED USER
S616
REGISTERED USER LOG-IN
S603
SELECT QUICK PRINT OR REGISTERED USER
QUICK PRINT
S617
SELECT OPTION TO ADD FILE
S604
SELECT BROWSE AND FILE OR ENTER FILE NAME
S605
SELECT ADD FILES
S606
UPLOAD FILE AND DISPLAY UPLOADED FILE FOLDER CONTENTS
S607
ADD MORE FILES?
YES
NO
S608
SELECT PRINT FILES
S609
ENTER NUMBER OF COPIES OR ACCEPT DEFAULT (=1)
S610
CALCULATE TOTAL, CONTINUE, OR CANCEL
CALCULATE
S611
CALCULATE TOTAL COST
CANCEL
CONTINUE
S612
ENTER CREDIT CARD INFORMATION
S613
CONFIRM PRINT REQUEST
S614
UPLOAD CREDIT CARD INFORMATION TO SERVER USING SSL PROTOCOL
S615
END SESSION

FIG. 6

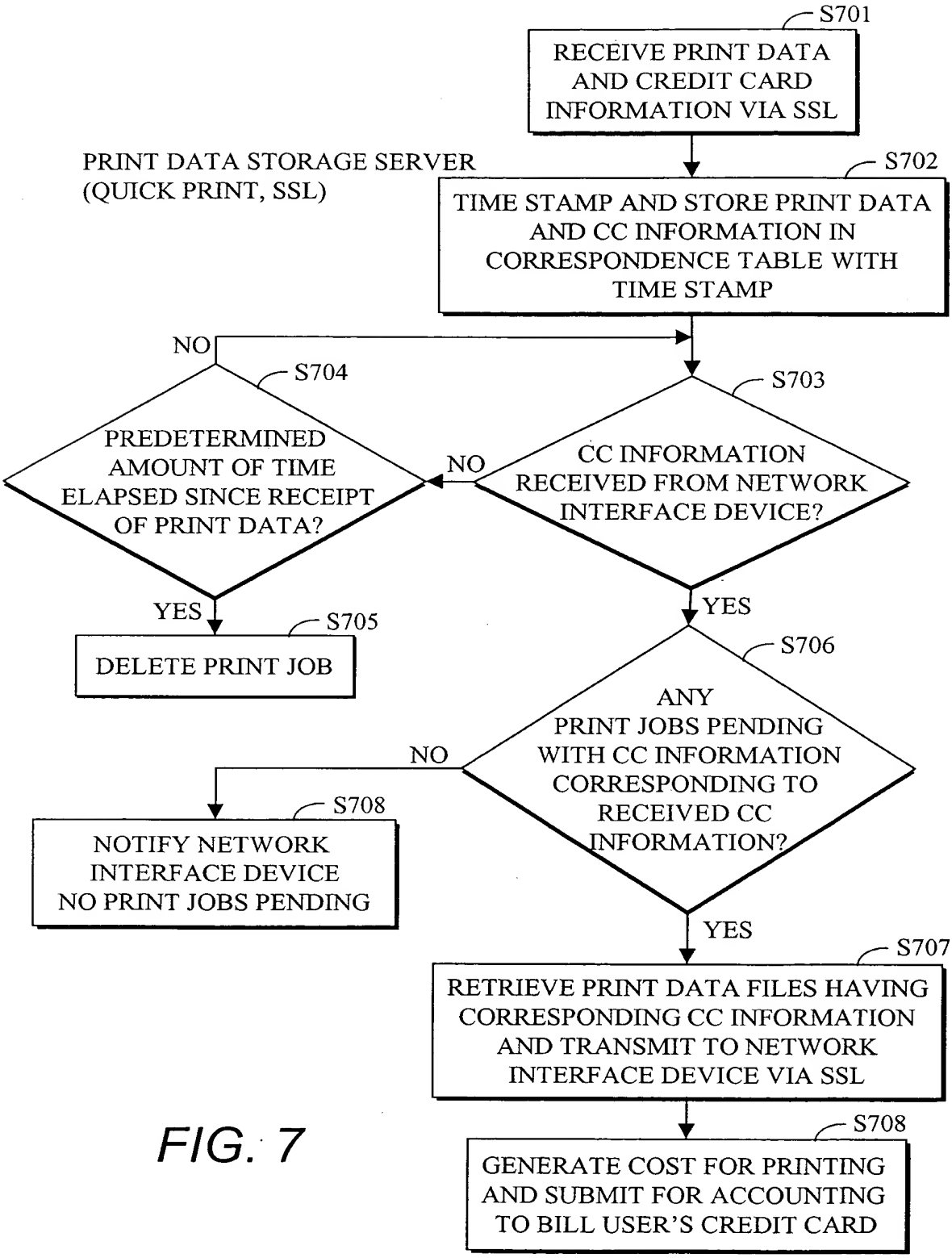
PRINT DATA STORAGE SERVER
(QUICK PRINT, SSL)
S701
RECEIVE PRINT DATA AND CREDIT CARD INFORMATION VIA SSL
S702
TIME STAMP AND STORE PRINT DATA AND CC INFORMATION IN CORRESPONDENCE TABLE WITH TIME STAMP
S703
CC INFORMATION RECEIVED FROM NETWORK INTERFACE DEVICE?
NO
S704
PREDETERMINED AMOUNT OF TIME ELAPSED SINCE RECEIPT OF PRINT DATA?
YES
S705
DELETE PRINT JOB
YES
S706
ANY PRINT JOBS PENDING WITH CC INFORMATION CORRESPONDING TO RECEIVED CC INFORMATION?
NO
S708
NOTIFY NETWORK INTERFACE DEVICE NO PRINT JOBS PENDING
YES
S707
RETRIEVE PRINT DATA FILES HAVING CORRESPONDING CC INFORMATION AND TRANSMIT TO NETWORK INTERFACE DEVICE VIA SSL
S708
GENERATE COST FOR PRINTING AND SUBMIT FOR ACCOUNTING TO BILL USER'S CREDIT CARD

FIG. 7

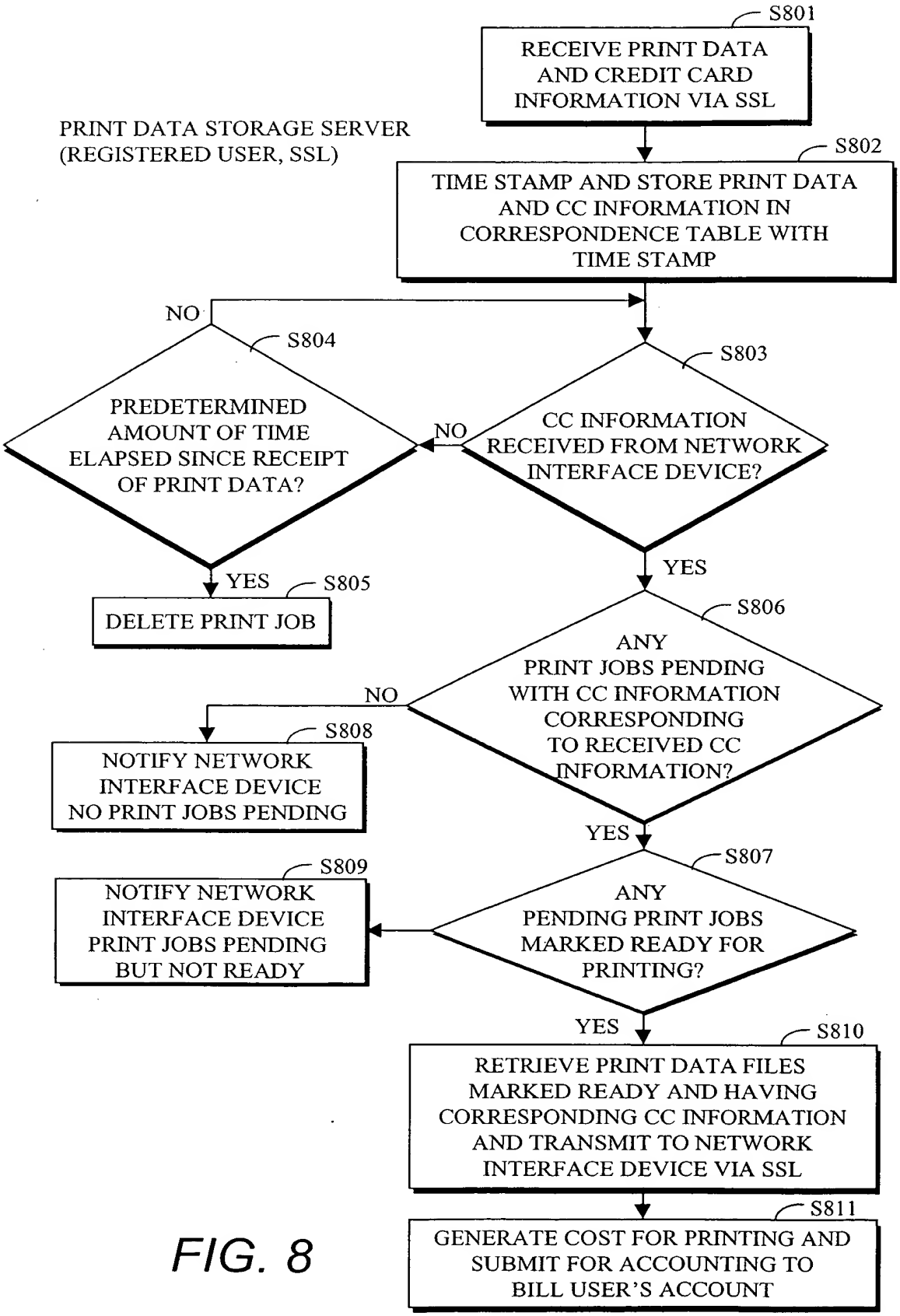
PRINT DATA STORAGE SERVER
(REGISTERED USER, SSL)
S801
RECEIVE PRINT DATA AND CREDIT CARD INFORMATION VIA SSL
S802
TIME STAMP AND STORE PRINT DATA AND CC INFORMATION IN CORRESPONDENCE TABLE WITH TIME STAMP
S803
CC INFORMATION RECEIVED FROM NETWORK INTERFACE DEVICE?
NO
S804
PREDETERMINED AMOUNT OF TIME ELAPSED SINCE RECEIPT OF PRINT DATA?
YES
S805
DELETE PRINT JOB
YES
S806
ANY PRINT JOBS PENDING WITH CC INFORMATION CORRESPONDING TO RECEIVED CC INFORMATION?
NO
S808
NOTIFY NETWORK INTERFACE DEVICE NO PRINT JOBS PENDING
YES
S807
ANY PENDING PRINT JOBS MARKED READY FOR PRINTING?
S809
NOTIFY NETWORK INTERFACE DEVICE PRINT JOBS PENDING BUT NOT READY
YES
S810
RETRIEVE PRINT DATA FILES MARKED READY AND HAVING CORRESPONDING CC INFORMATION AND TRANSMIT TO NETWORK INTERFACE DEVICE VIA SSL
S811
GENERATE COST FOR PRINTING AND SUBMIT FOR ACCOUNTING TO BILL USER'S ACCOUNT

FIG. 8

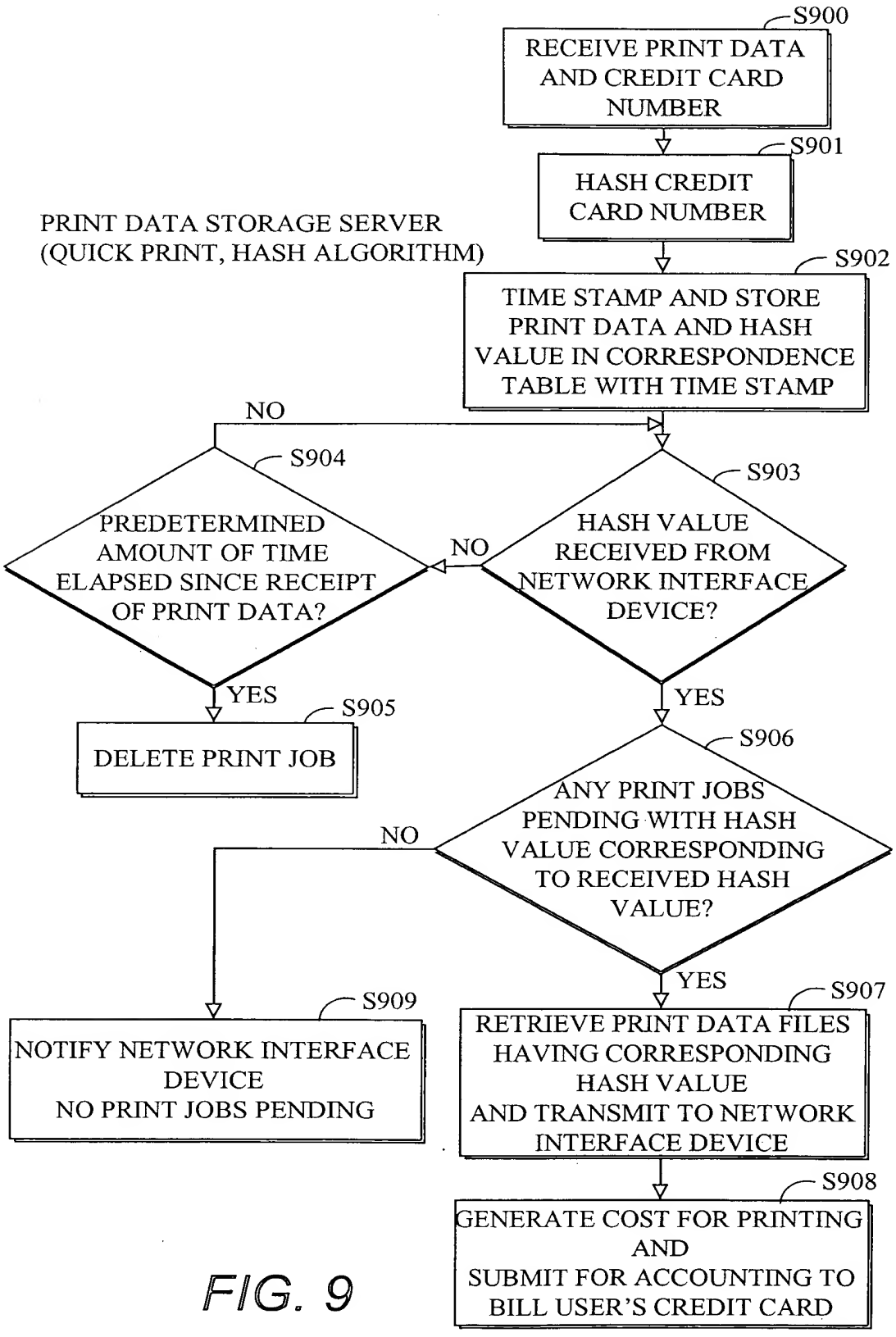
PRINT DATA STORAGE SERVER
(QUICK PRINT, HASH ALGORITHM)
S900
RECEIVE PRINT DATA AND CREDIT CARD NUMBER
S901
HASH CREDIT CARD NUMBER
S902
TIME STAMP AND STORE PRINT DATA AND HASH VALUE IN CORRESPONDENCE TABLE WITH TIME STAMP
NO
S904
PREDETERMINED AMOUNT OF TIME ELAPSED SINCE RECEIPT OF PRINT DATA?
NO
S903
HASH VALUE RECEIVED FROM NETWORK INTERFACE DEVICE?
YES
S905
DELETE PRINT JOB
YES
S906
ANY PRINT JOBS PENDING WITH HASH VALUE CORRESPONDING TO RECEIVED HASH VALUE?
NO
S909
NOTIFY NETWORK INTERFACE DEVICE
NO PRINT JOBS PENDING
YES
S907
RETRIEVE PRINT DATA FILES HAVING CORRESPONDING HASH VALUE AND TRANSMIT TO NETWORK INTERFACE DEVICE
S908
GENERATE COST FOR PRINTING AND SUBMIT FOR ACCOUNTING TO BILL USER'S CREDIT CARD

FIG. 9

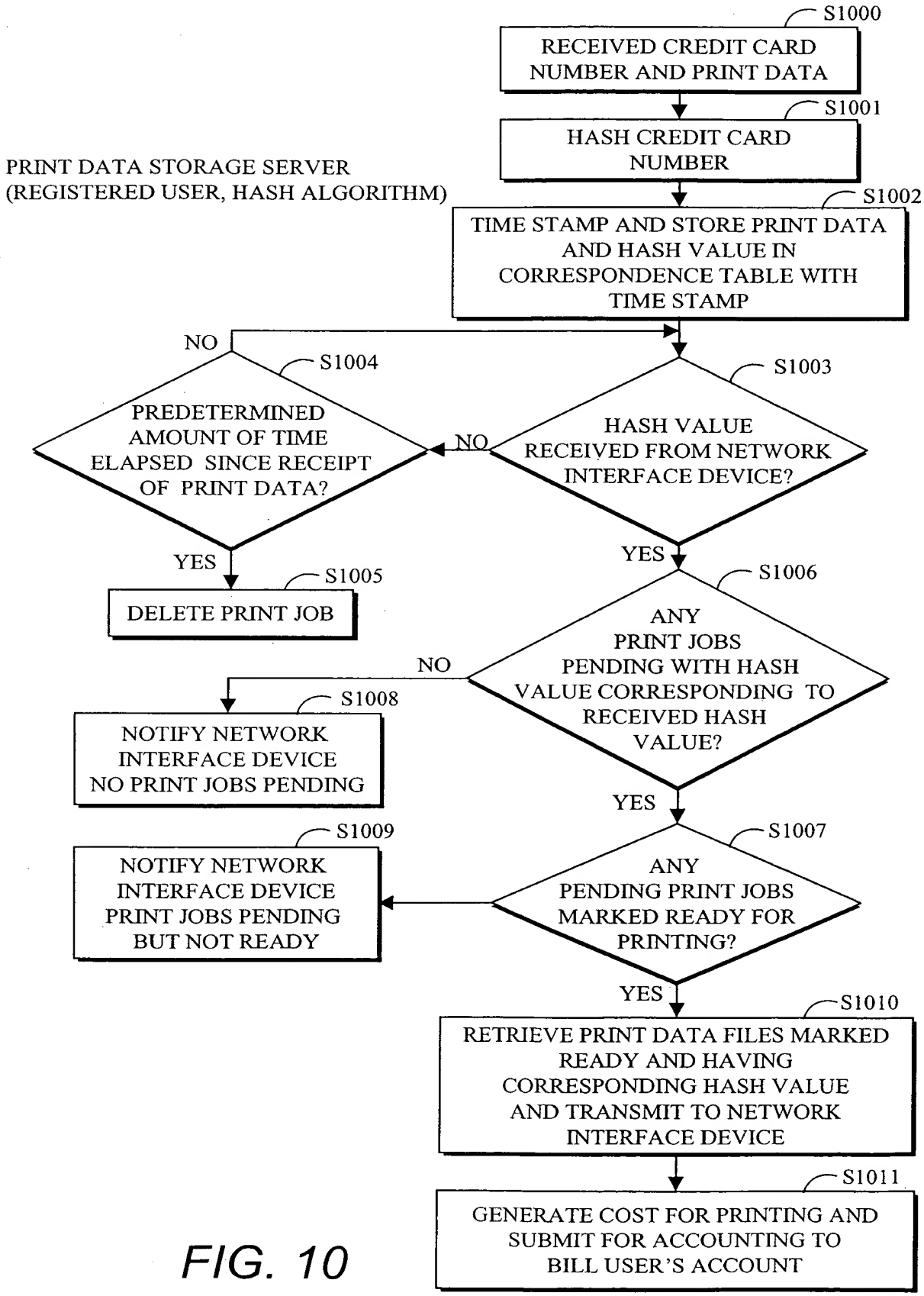
PRINT DATA STORAGE SERVER
(REGISTERED USER, HASH ALGORITHM)
S1000
RECEIVED CREDIT CARD NUMBER AND PRINT DATA
S1001
HASH CREDIT CARD NUMBER
S1002
TIME STAMP AND STORE PRINT DATA AND HASH VALUE IN CORRESPONDENCE TABLE WITH TIME STAMP
S1003
HASH VALUE RECEIVED FROM NETWORK INTERFACE DEVICE?
NO
S1004
PREDETERMINED AMOUNT OF TIME ELAPSED SINCE RECEIPT OF PRINT DATA?
YES
S1005
DELETE PRINT JOB
YES
S1006
ANY PRINT JOBS PENDING WITH HASH VALUE CORRESPONDING TO RECEIVED HASH VALUE?
NO
S1008
NOTIFY NETWORK INTERFACE DEVICE NO PRINT JOBS PENDING
YES
S1007
ANY PENDING PRINT JOBS MARKED READY FOR PRINTING?
S1009
NOTIFY NETWORK INTERFACE DEVICE PRINT JOBS PENDING BUT NOT READY
YES
S1010
RETRIEVE PRINT DATA FILES MARKED READY AND HAVING CORRESPONDING HASH VALUE AND TRANSMIT TO NETWORK INTERFACE DEVICE
S1011
GENERATE COST FOR PRINTING AND SUBMIT FOR ACCOUNTING TO BILL USER'S ACCOUNT

FIG. 10

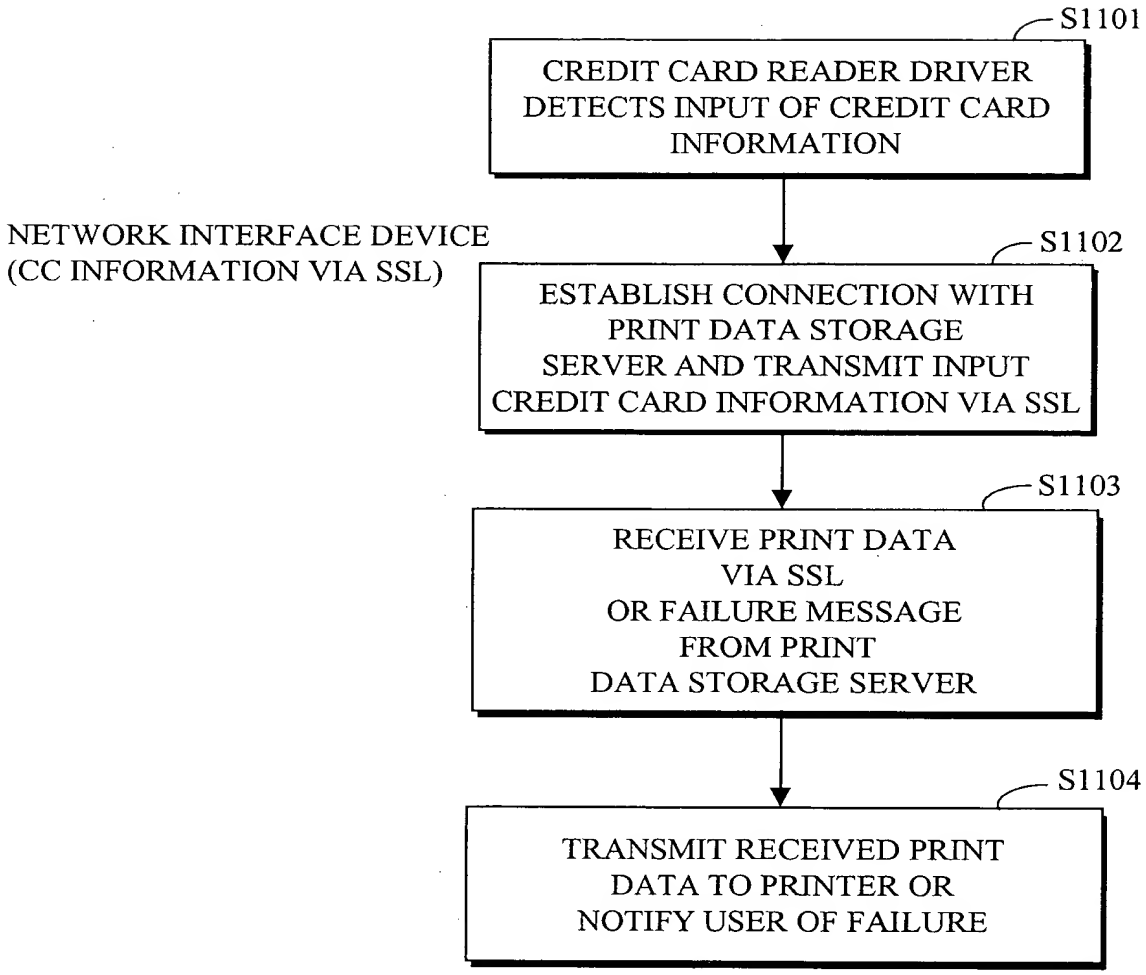
S1101
CREDIT CARD READER DRIVER DETECTS INPUT OF CREDIT CARD INFORMATION
NETWORK INTERFACE DEVICE (CC INFORMATION VIA SSL)
S1102
ESTABLISH CONNECTION WITH PRINT DATA STORAGE SERVER AND TRANSMIT INPUT CREDIT CARD INFORMATION VIA SSL
S1103
RECEIVE PRINT DATA VIA SSL OR FAILURE MESSAGE FROM PRINT DATA STORAGE SERVER
S1104
TRANSMIT RECEIVED PRINT DATA TO PRINTER OR NOTIFY USER OF FAILURE

FIG. 11

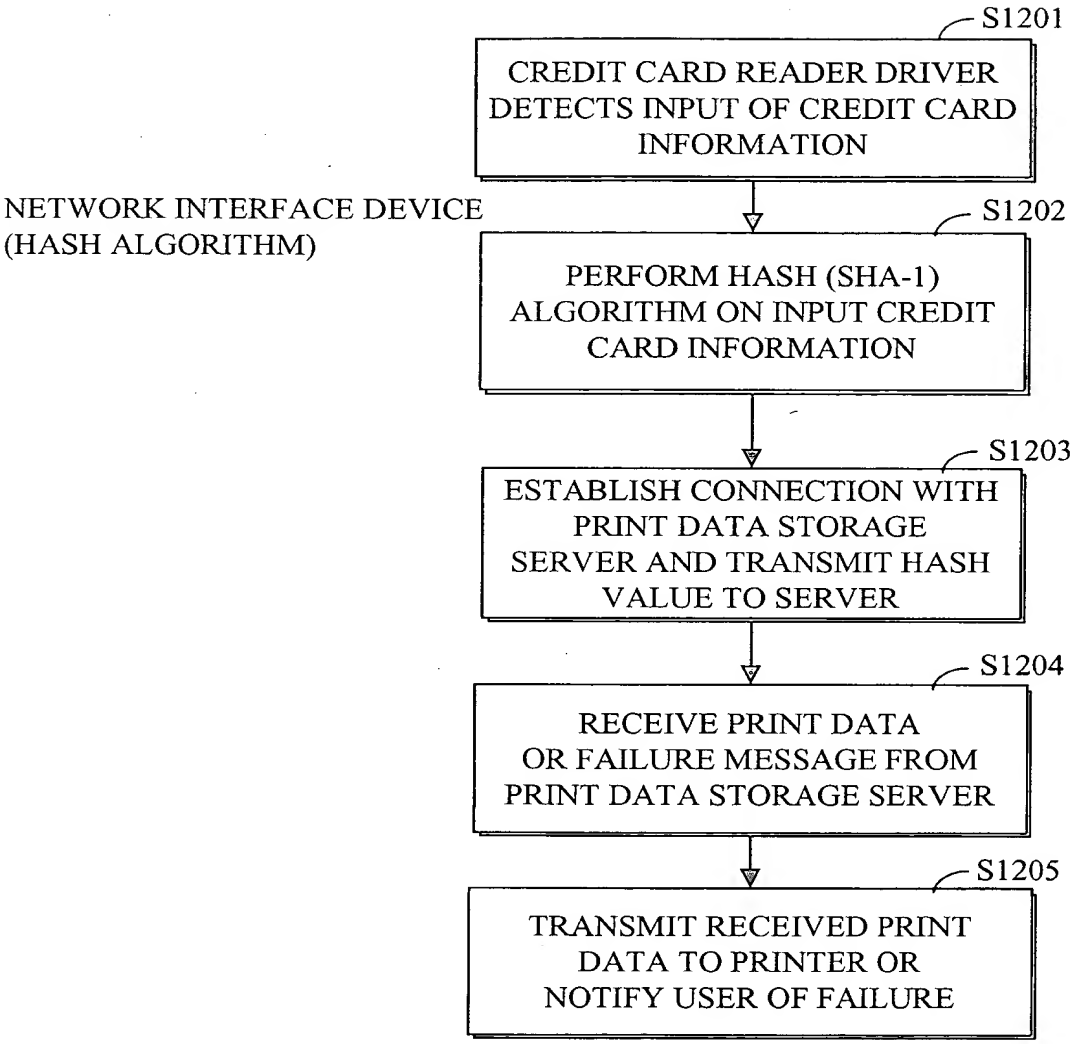
S1201
CREDIT CARD READER DRIVER DETECTS INPUT OF CREDIT CARD INFORMATION
NETWORK INTERFACE DEVICE (HASH ALGORITHM)
S1202
PERFORM HASH (SHA-1) ALGORITHM ON INPUT CREDIT CARD INFORMATION
S1203
ESTABLISH CONNECTION WITH PRINT DATA STORAGE SERVER AND TRANSMIT HASH VALUE TO SERVER
S1204
RECEIVE PRINT DATA OR FAILURE MESSAGE FROM PRINT DATA STORAGE SERVER
S1205
TRANSMIT RECEIVED PRINT DATA TO PRINTER OR NOTIFY USER OF FAILURE

FIG. 12

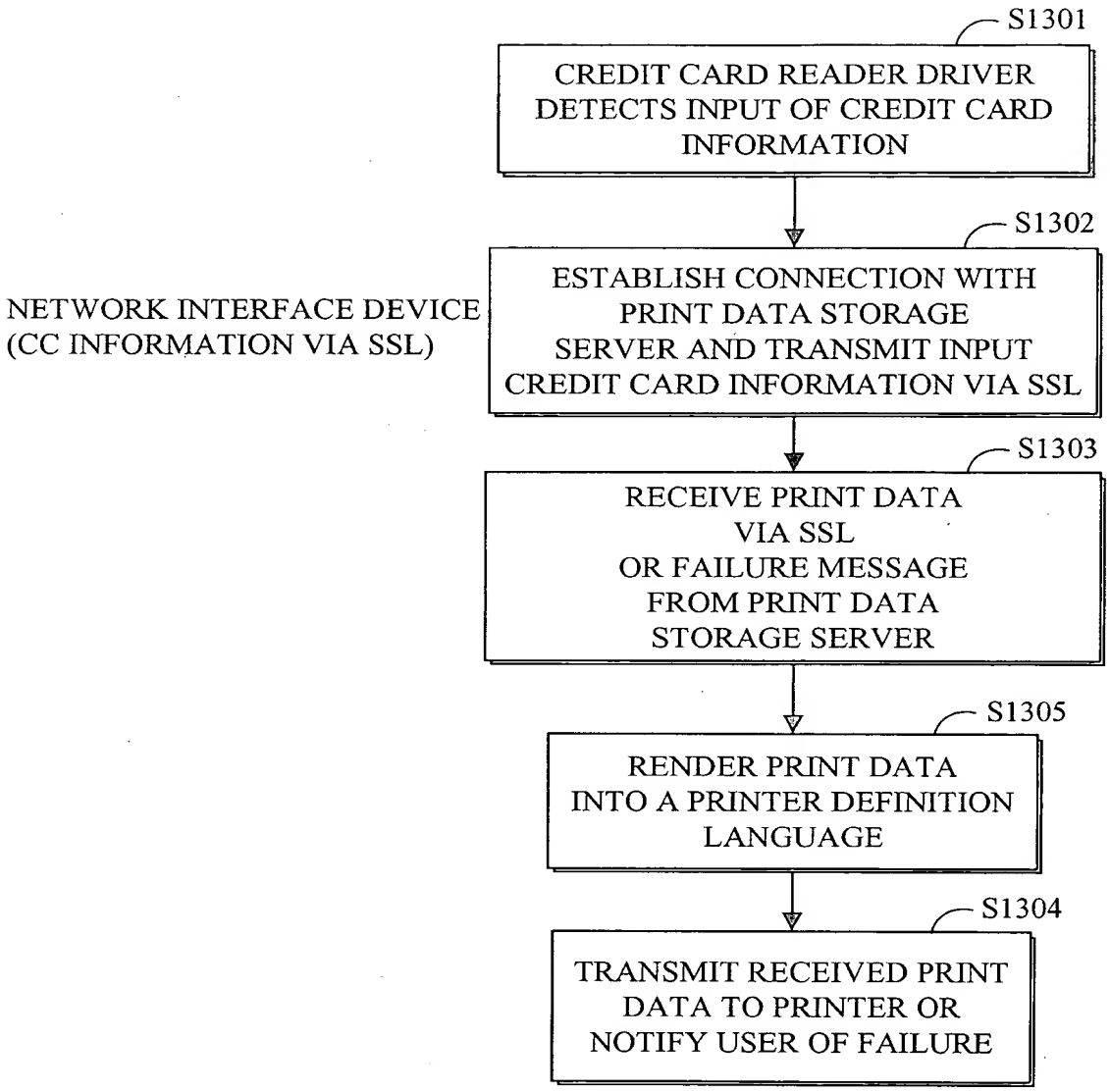
S1301
CREDIT CARD READER DRIVER DETECTS INPUT OF CREDIT CARD INFORMATION
S1302
NETWORK INTERFACE DEVICE (CC INFORMATION VIA SSL)
ESTABLISH CONNECTION WITH PRINT DATA STORAGE SERVER AND TRANSMIT INPUT CREDIT CARD INFORMATION VIA SSL
S1303
RECEIVE PRINT DATA VIA SSL OR FAILURE MESSAGE FROM PRINT DATA STORAGE SERVER
S1305
RENDER PRINT DATA INTO A PRINTER DEFINITION LANGUAGE
S1304
TRANSMIT RECEIVED PRINT DATA TO PRINTER OR NOTIFY USER OF FAILURE

FIG. 13

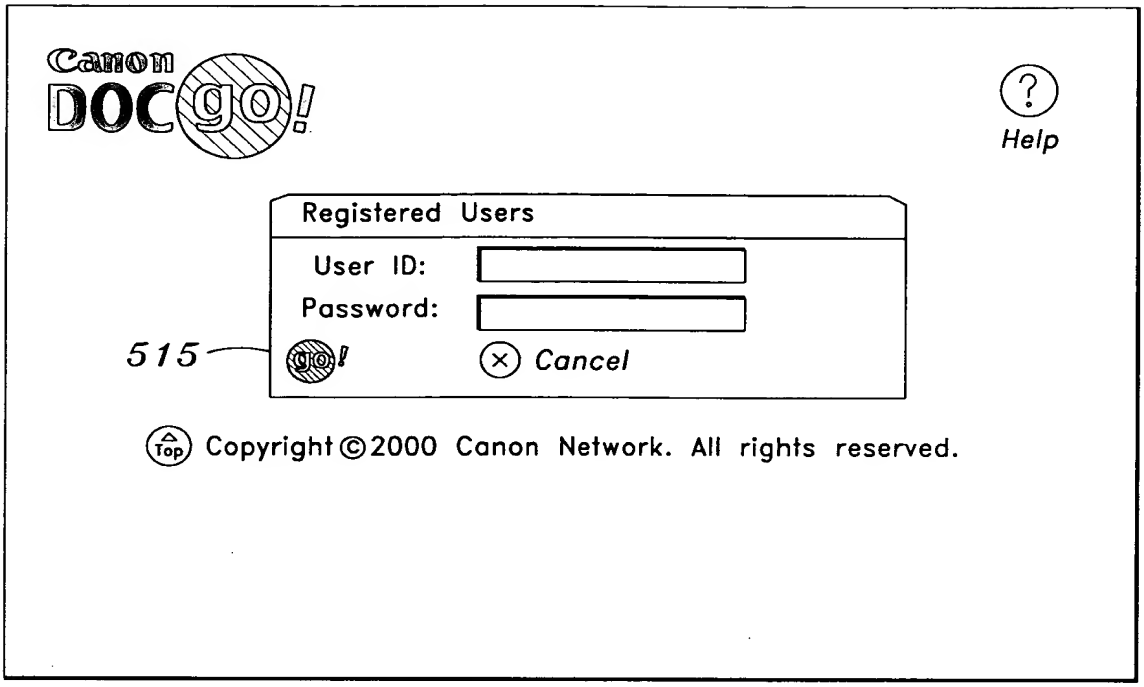
Canon
DOC go!
Help
Registered Users
User ID:
Password:
515
go!
Cancel
Top
Copyright ©2000 Canon Network. All rights reserved.

FIG. 14

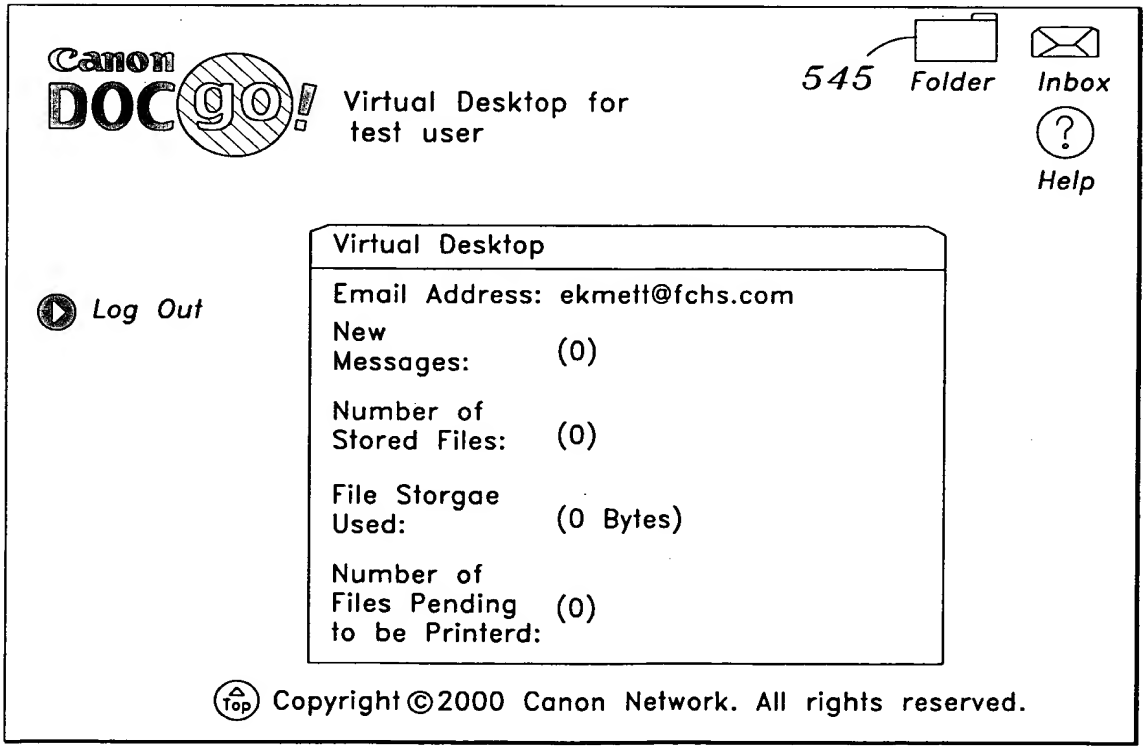
Canon
DOC go!
Virtual Desktop for
test user
545
Folder
Inbox
Help
Log Out
Virtual Desktop
Email Address: ekmett@fchs.com
New Messages: (0)
Number of Stored Files: (0)
File Storgae Used: (0 Bytes)
Number of Files Pending to be Printerd: (0)
Top
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FIG. 15

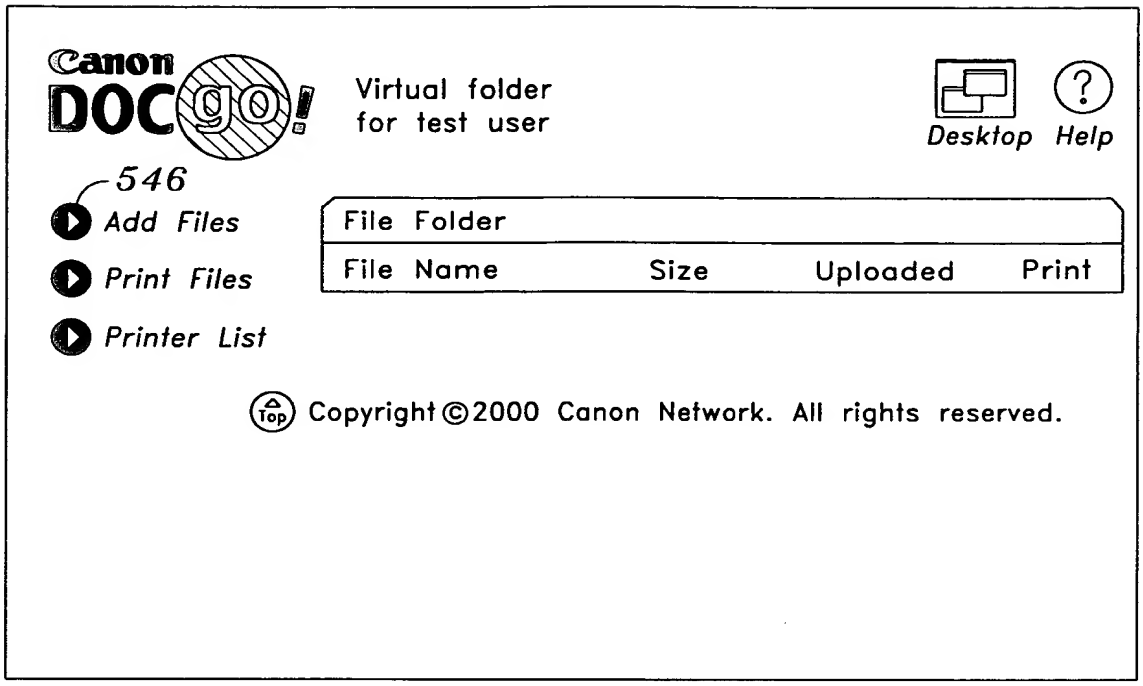
Canon
DOC go!
Virtual folder
for test user
Desktop
Help
546
Add Files
Print Files
Printer List
File Folder
File Name
Size
Uploaded
Print
Top
Copyright ©2000 Canon Network. All rights reserved.

FIG. 16

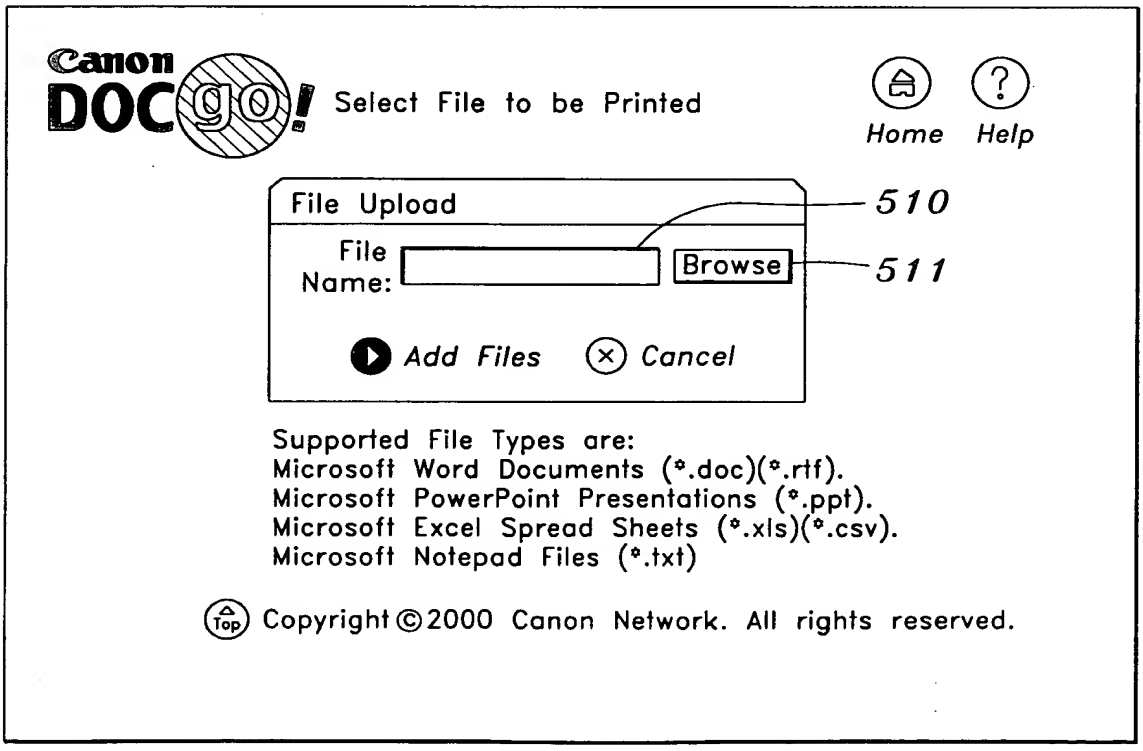
Canon
DOC go!
Select File to be Printed
Home
Help
File Upload
510
File Name:
Browse
511
Add Files
Cancel
Supported File Types are:
Microsoft Word Documents (*.doc)(*.rtf).
Microsoft PowerPoint Presentations (*.ppt).
Microsoft Excel Spread Sheets (*.xls)(*.csv).
Microsoft Notepad Files (*.txt)
Top
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FIG. 17

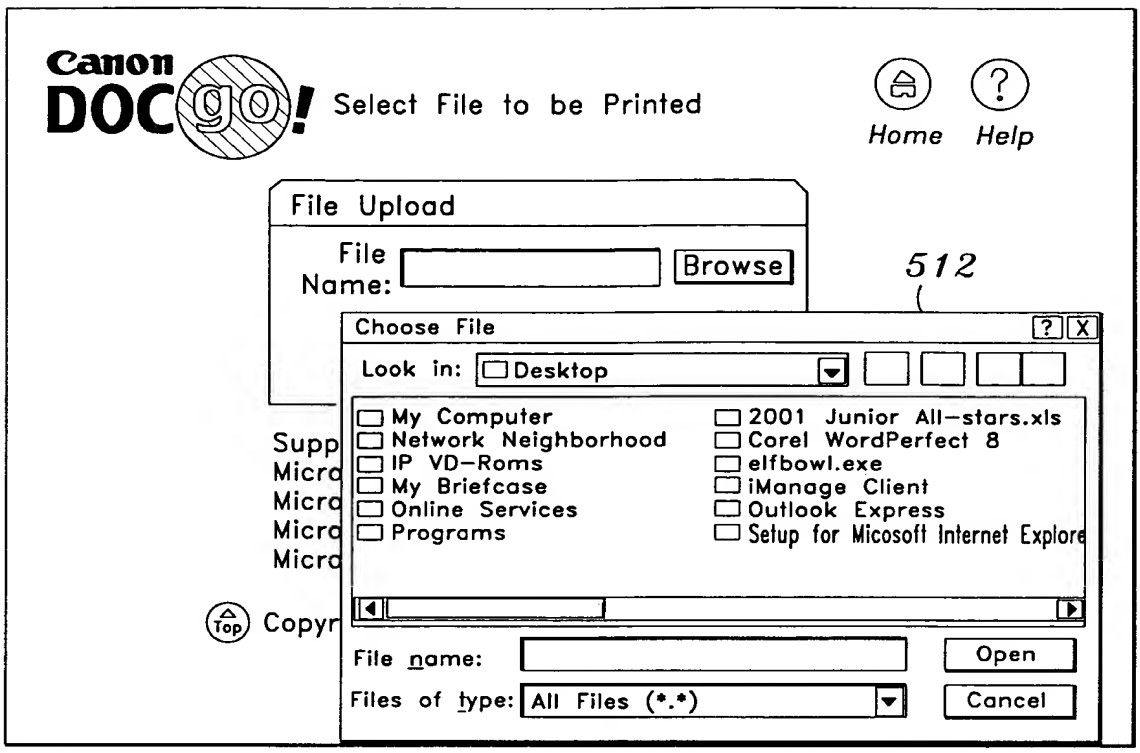
Canon
DOCgo!
Select File to be Printed
Home
Help
File Upload
File Name:
Browse
512
Choose File
Look in: Desktop
My Computer
Network Neighborhood
IP VD-Roms
My Briefcase
Online Services
Programs
2001 Junior All-stars.xls
Corel WordPerfect 8
elfbowl.exe
iManage Client
Outlook Express
Setup for Micosoft Internet Explore
File name:
Open
Files of type: All Files (*.*)
Cancel
Top
Copyr

FIG. 18

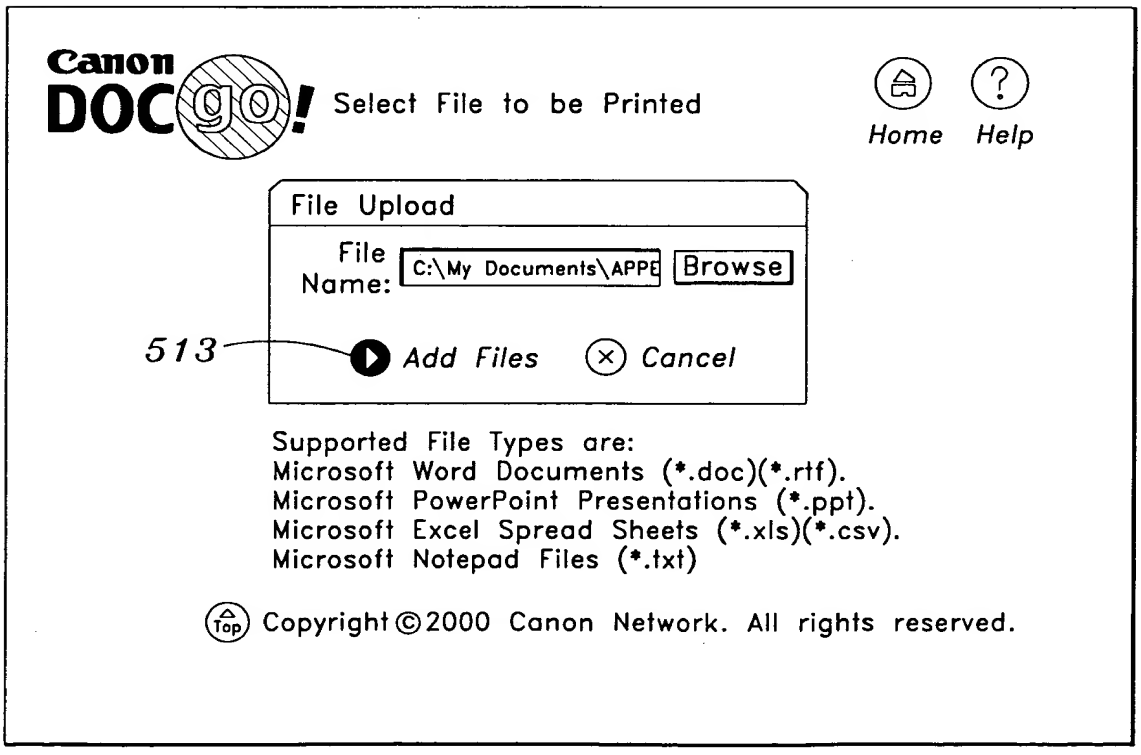
Canon
DOCgo!
Select File to be Printed
Home
Help
File Upload
File Name:
C:\My Documents\APPE
Browse
513
Add Files
Cancel
Supported File Types are:
Microsoft Word Documents (*.doc)(*.rtf).
Microsoft PowerPoint Presentations (*.ppt).
Microsoft Excel Spread Sheets (*.xls)(*.csv).
Microsoft Notepad Files (*.txt)
Top
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FIG. 19

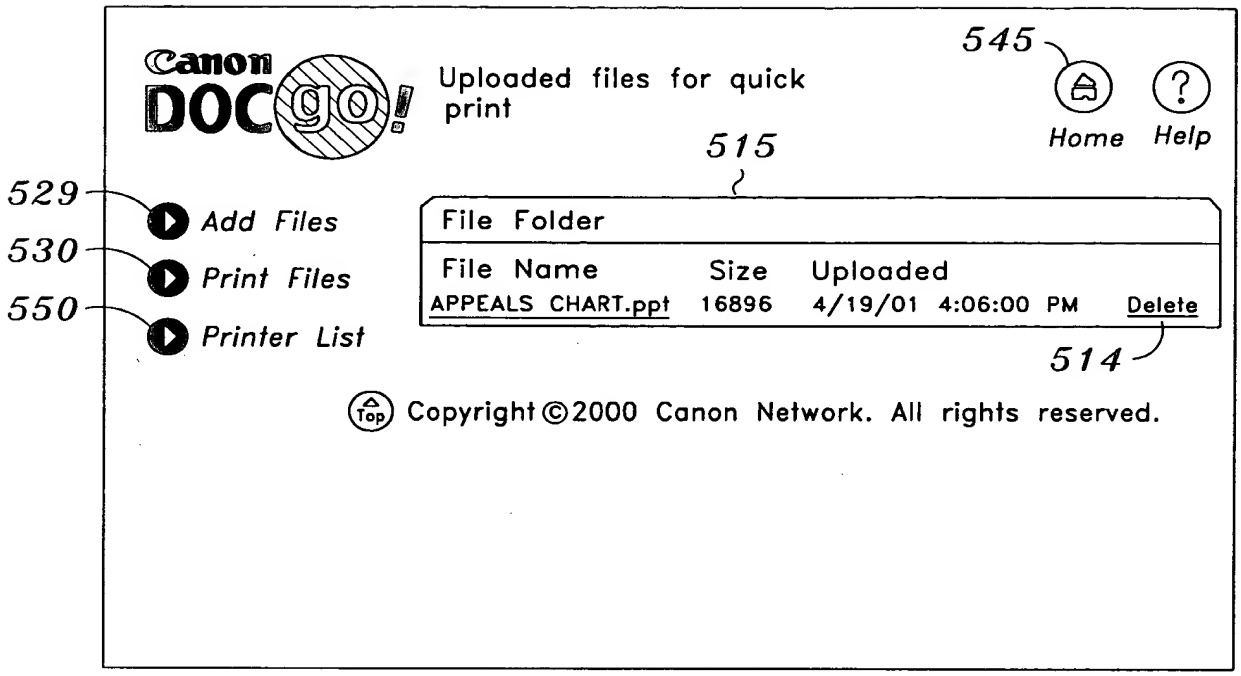
Canon DOC go!
Uploaded files for quick print
545
Home
Help
515
529
Add Files
530
Print Files
550
Printer List
File Folder
File Name
Size
Uploaded
APPEALS CHART.ppt
16896
4/19/01 4:06:00 PM
Delete
514
Top
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FIG. 20

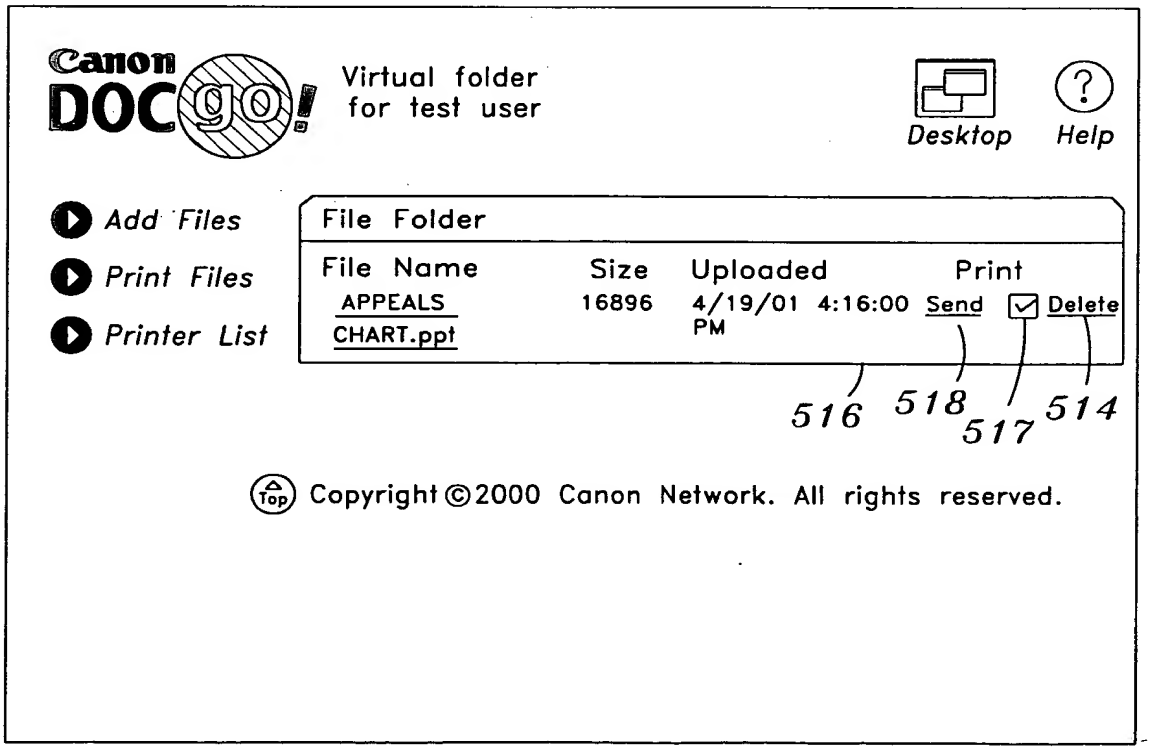
Canon DOC go!
Virtual folder for test user
Desktop
Help
Add Files
Print Files
Printer List
File Folder
File Name
Size
Uploaded
Print
APPEALS CHART.ppt
16896
4/19/01 4:16:00 PM
Send
Delete
516
518
517
514
Top
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FIG. 21

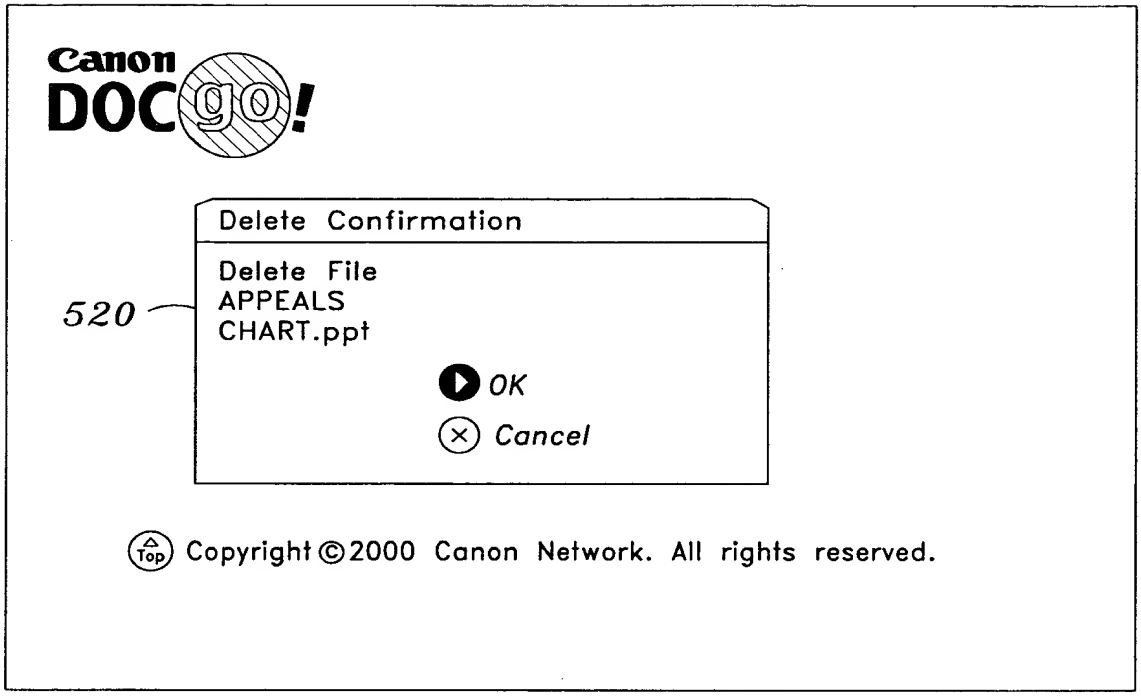
Canon
DOC go!
Delete Confirmation
Delete File
APPEALS
CHART.ppt
520
OK
Cancel
Top
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FIG. 22

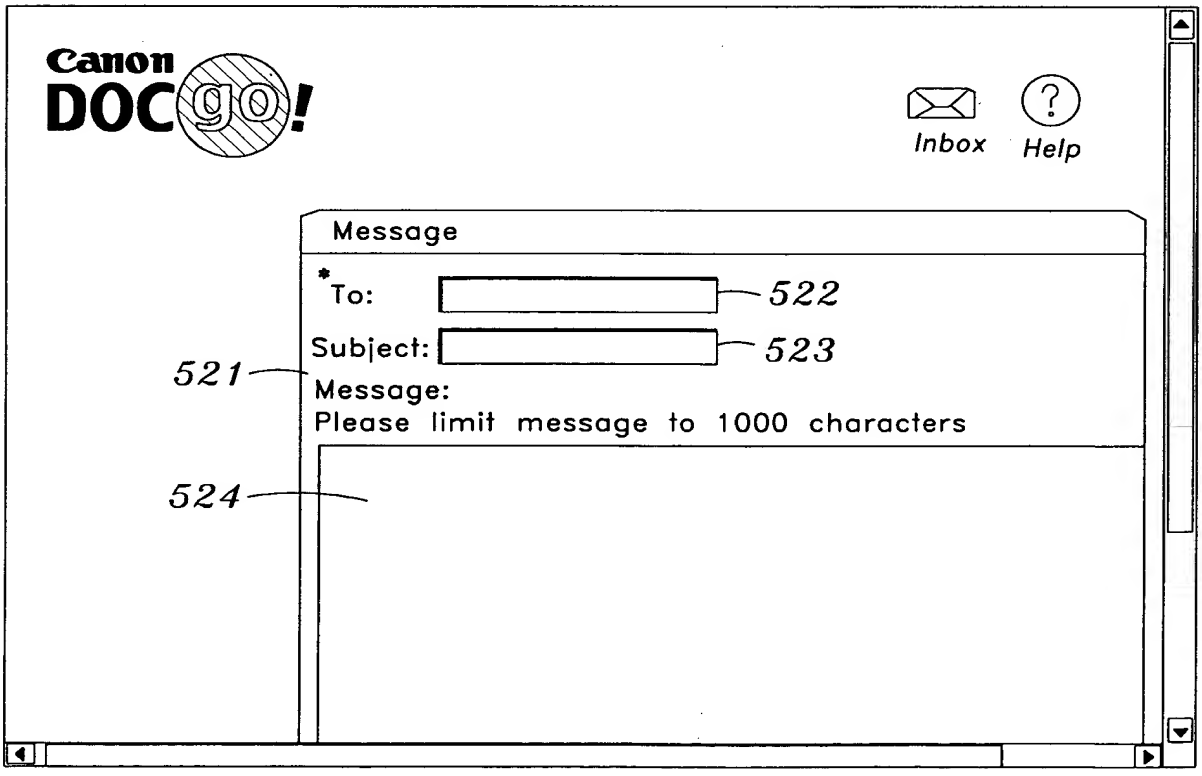
Canon
DOC go!
Inbox
Help
Message
*To:
522
Subject:
523
521
Message:
Please limit message to 1000 characters
524

FIG. 23

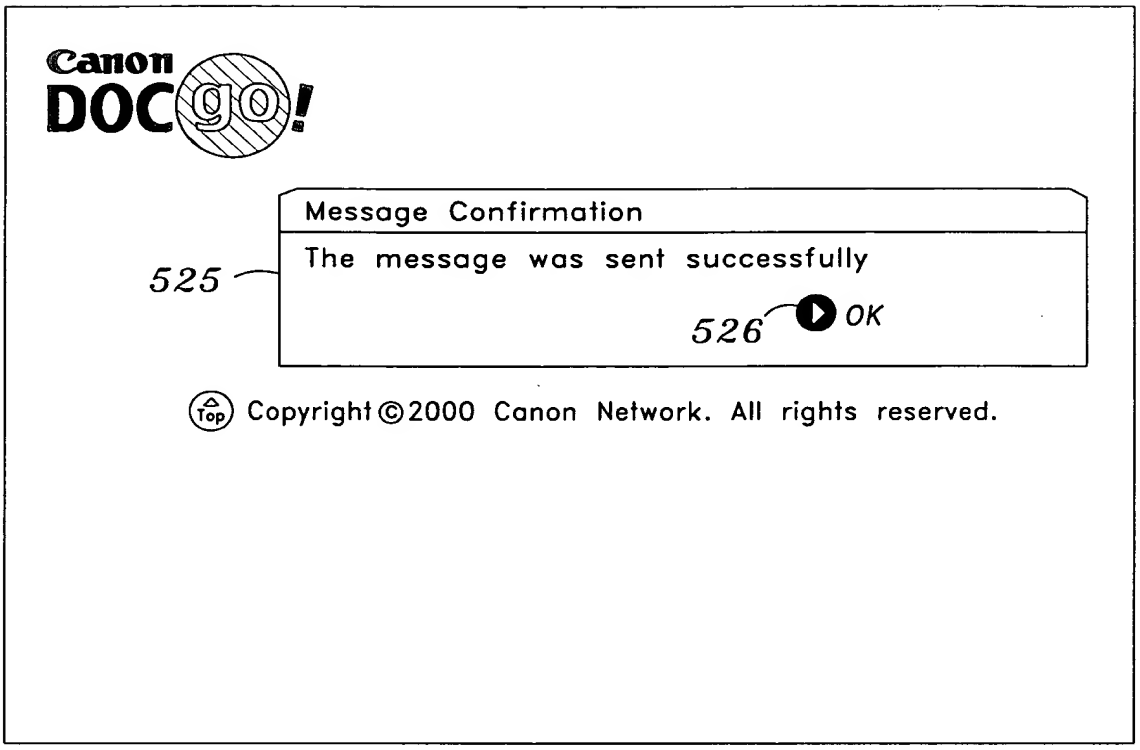
Canon
DOCgo!
Message Confirmation
The message was sent successfully
525
526
OK
Top
Copyright ©2000 Canon Network. All rights reserved.

FIG. 24

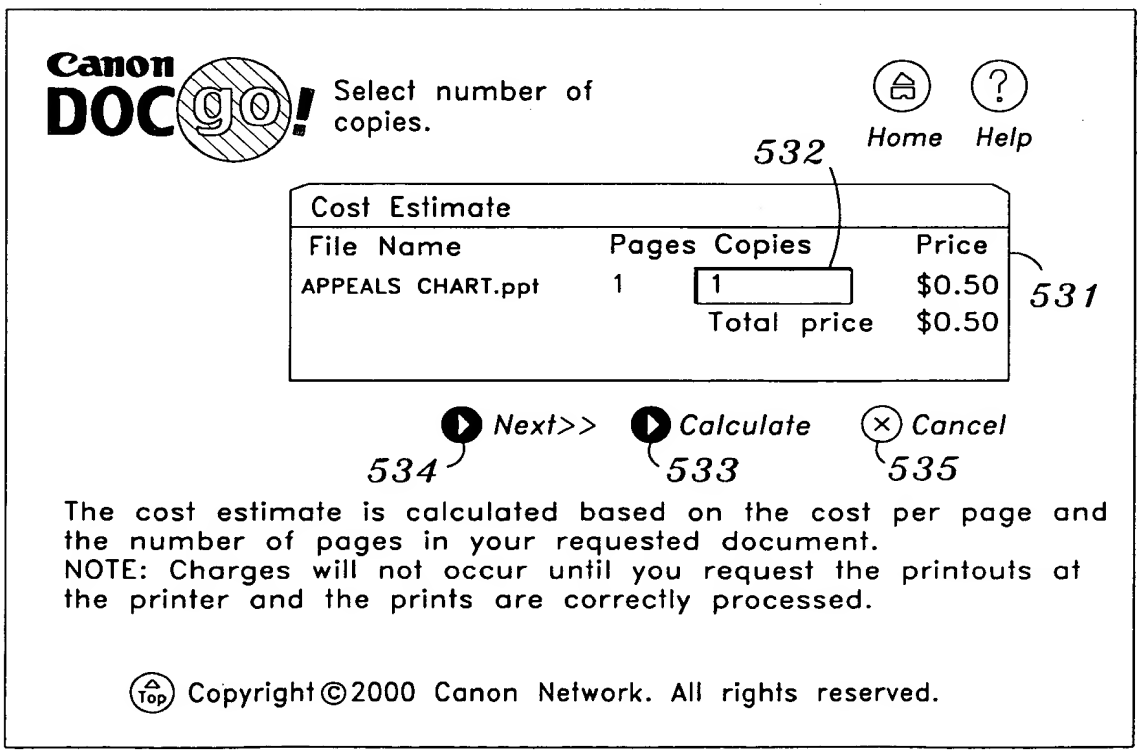
Canon
DOCgo!
Select number of copies.
Home
Help
532
Cost Estimate
File Name
Pages
Copies
Price
APPEALS CHART.ppt
1
1
$0.50
531
Total price
$0.50
Next>>
Calculate
Cancel
534
533
535
The cost estimate is calculated based on the cost per page and the number of pages in your requested document.
NOTE: Charges will not occur until you request the printouts at the printer and the prints are correctly processed.
Top
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FIG. 25

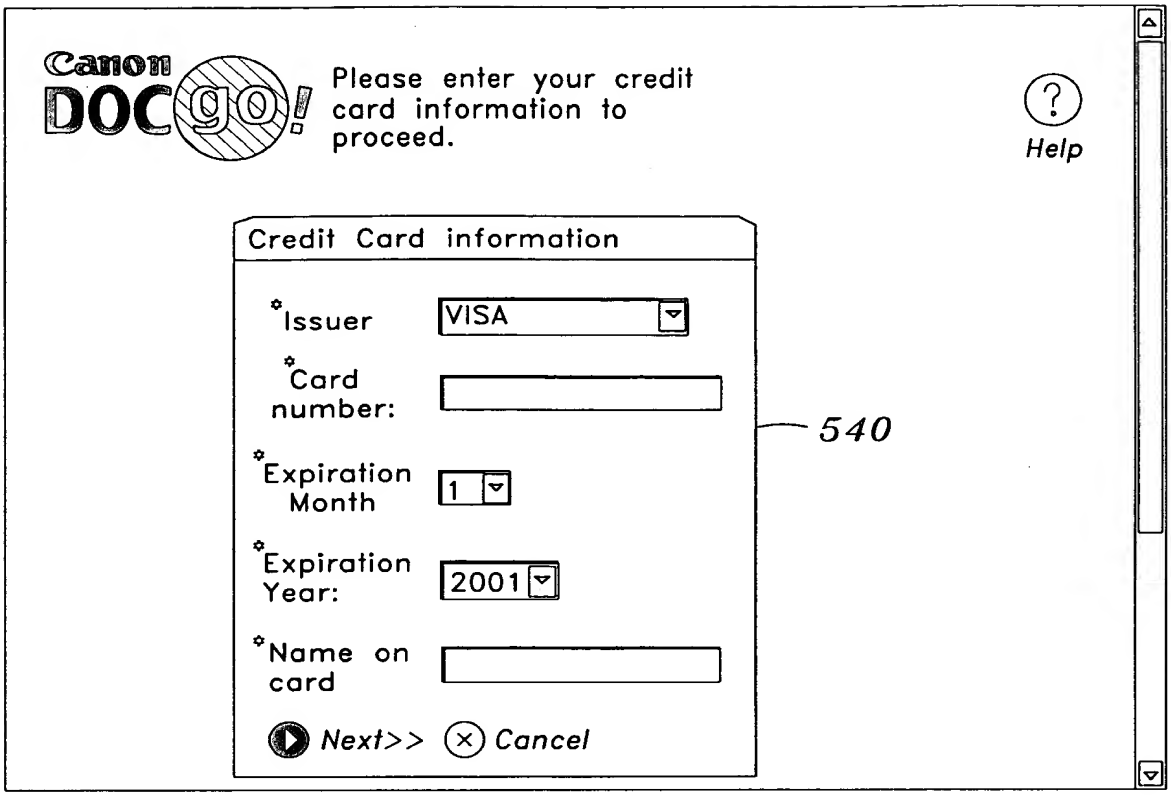
Canon DOC go!
Please enter your credit card information to proceed.
Help
Credit Card information
*Issuer
VISA
*Card number:
*Expiration Month
1
*Expiration Year:
2001
*Name on card
Next>>
Cancel
540

FIG. 26

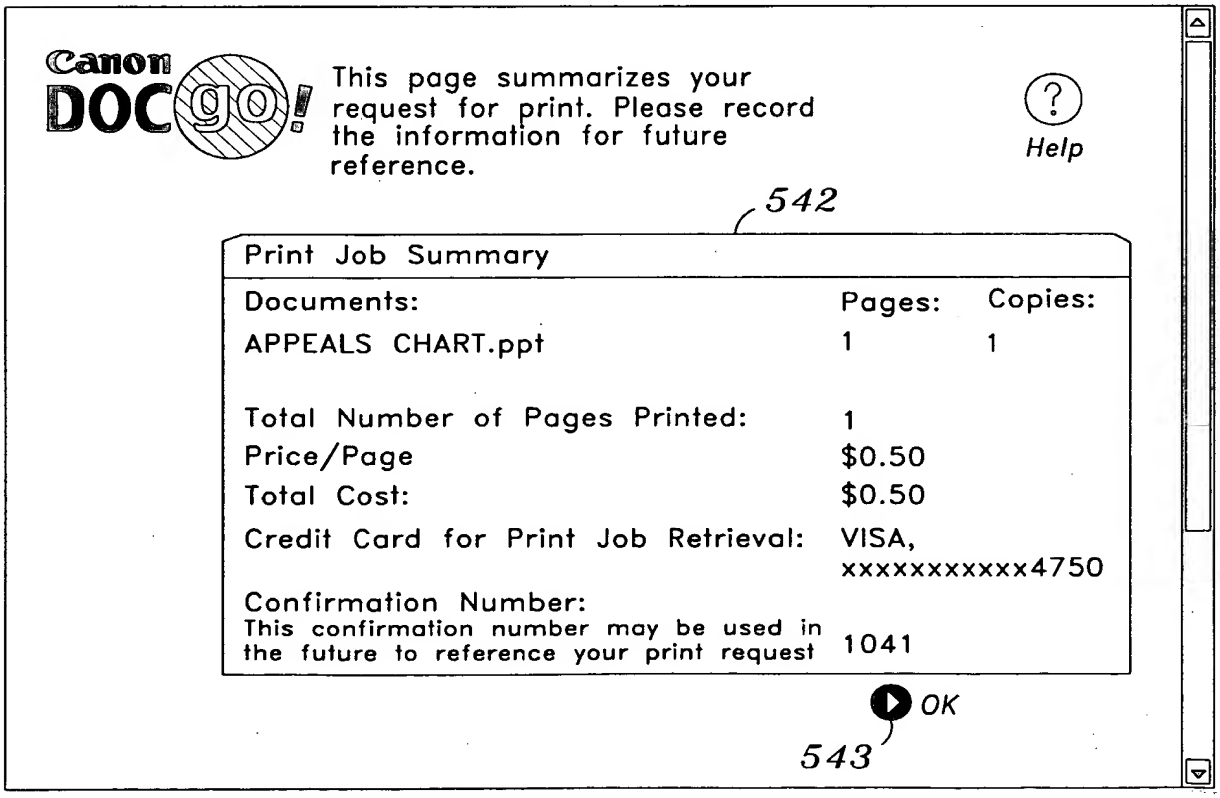
Canon DOC go!
This page summarizes your request for print. Please record the information for future reference.
Help
542
Print Job Summary
Documents:
Pages:
Copies:
APPEALS CHART.ppt
1
1
Total Number of Pages Printed:
1
Price/Page
$0.50
Total Cost:
$0.50
Credit Card for Print Job Retrieval:
VISA, xxxxxxxxxxx4750
Confirmation Number:
This confirmation number may be used in the future to reference your print request
1041
OK
543

FIG. 27

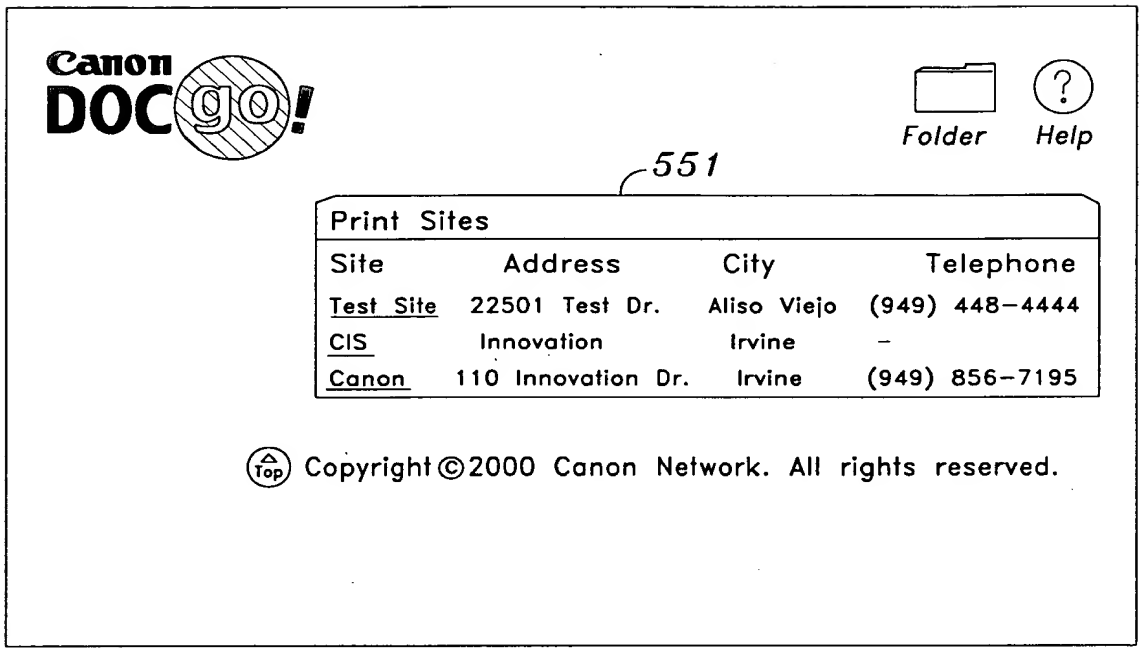
Canon
DOC go!
Folder
Help
551
Print Sites
Site
Address
City
Telephone
Test Site
22501 Test Dr.
Aliso Viejo
(949) 448-4444
CIS
Innovation
Irvine
-
Canon
110 Innovation Dr.
Irvine
(949) 856-7195
Top
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FIG. 28

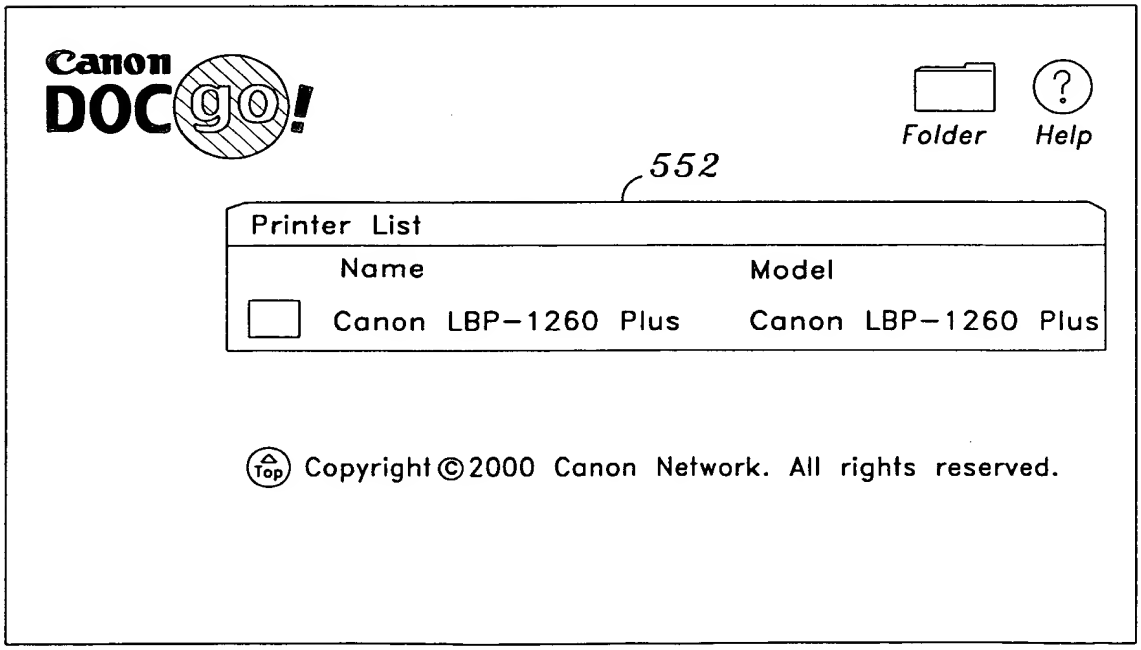
Canon
DOC go!
Folder
Help
552
Printer List
Name
Model
Canon LBP-1260 Plus
Canon LBP-1260 Plus
Top
Copyright ©2000 Canon Network. All rights reserved.

FIG. 29

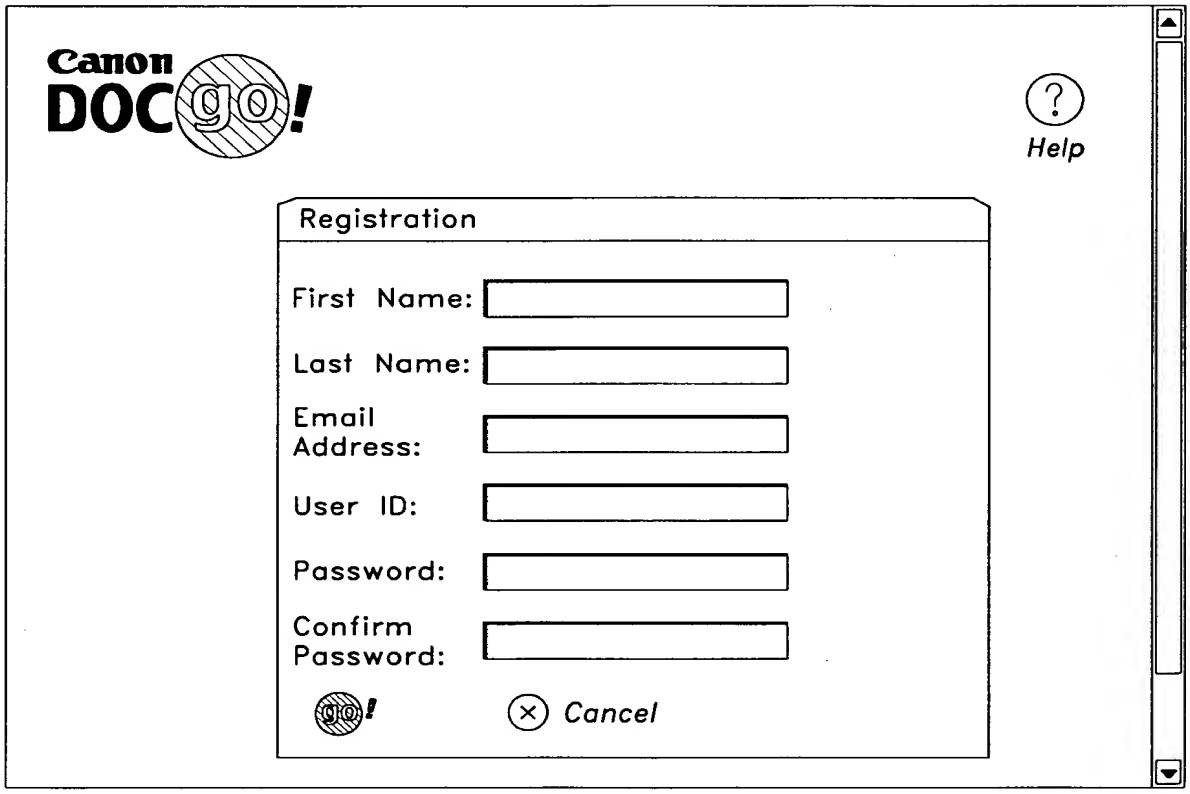
Canon
DOC go!
Help
Registration
First Name:
Last Name:
Email Address:
User ID:
Password:
Confirm Password:
go!
Cancel

FIG. 30

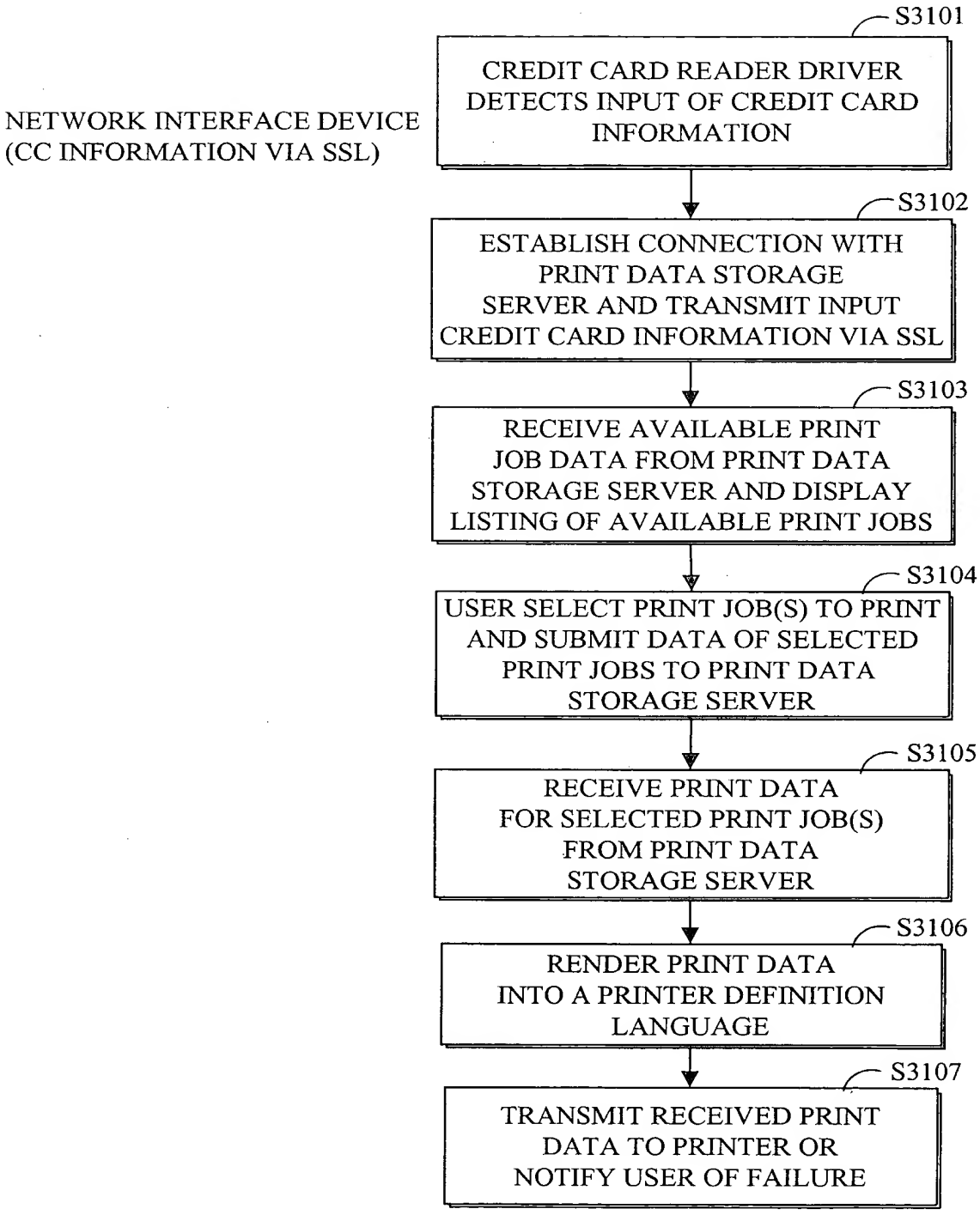
NETWORK INTERFACE DEVICE
(CC INFORMATION VIA SSL)
S3101
CREDIT CARD READER DRIVER DETECTS INPUT OF CREDIT CARD INFORMATION
S3102
ESTABLISH CONNECTION WITH PRINT DATA STORAGE SERVER AND TRANSMIT INPUT CREDIT CARD INFORMATION VIA SSL
S3103
RECEIVE AVAILABLE PRINT JOB DATA FROM PRINT DATA STORAGE SERVER AND DISPLAY LISTING OF AVAILABLE PRINT JOBS
S3104
USER SELECT PRINT JOB(S) TO PRINT AND SUBMIT DATA OF SELECTED PRINT JOBS TO PRINT DATA STORAGE SERVER
S3105
RECEIVE PRINT DATA FOR SELECTED PRINT JOB(S) FROM PRINT DATA STORAGE SERVER
S3106
RENDER PRINT DATA INTO A PRINTER DEFINITION LANGUAGE
S3107
TRANSMIT RECEIVED PRINT DATA TO PRINTER OR NOTIFY USER OF FAILURE

FIG. 31